DESIGNING TRAINING

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Compiled by Beverly Geber
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PREFACE

THE NEW HRD LIBRARY

Contemporary training ideas, strategies and techniques for managers and HRD professionals

Welcome to *The New HRD Library*. Before you read on, there are a few things you should know about this series of books and how it came into existence.

Each book in *The New HRD Library* contains articles originally published in *TRAINING Magazine, The Training Directors' Forum Newsletter, Creative Training Techniques, The Service Edge Newsletter* or *Front-Line Service Newsletter*, all Lakewood publications that explore contemporary human resources development issues, trends and ideas from different (although sometimes only slightly different) angles and perspectives. While there is some overlap among the books in the series, each of them stands on its own.

Our editors selected articles to illuminate a particular theme or subject area—from the dynamics of adult occupational learning, to managing and running a corporate training function, to designing cost-effective training programs, to training that ensures top-notch customer service. And more.

The pervasive style of the selected articles is that of magazine and newsletter journalism, opinion and commentary. In this accessible, nonacademic style, the authors address the real and immediate challenges you face as practicing HRD professionals or as managers and motivators of people.

The edited articles are contained between the covers of the books in *The New HRD Library*. Not, to repeat, as the definitive texts or final words on any one subject area, but as books that serve a different and (depending who you are) maybe even more useful purpose.

As the training profession evolves, it demands a solid understanding of the original ideas, theories and systems that shaped its development. Today's training professionals also must be prepared to absorb, assimilate and put into perspective an astonishing amount of new information. Like doctors, lawyers, bankers or other professionals, HRD professionals can never stop learning. Not if they want to be effective. Certainly not if they want to get ahead.

The publications that form the core of *The New HRD Library* have become among the most widely read and influential in the field because their editors have never forgotten that fundamental need. In addition to featuring the best writers, theorists and practitioners in HRD, each publication also meets the HRD professional's need to understand the newest techniques, strategies and approaches to tough workplace challenges *within* the context of the established body of HRD knowledge.

Thus, each publication I've discussed here is carefully balanced to appeal to relative novices in HRD as well as to seasoned professionals. And so are the books in *The New HRD Library*, which represents a comprehensive and systematic collection of current ideas and practical responses to meeting workplace challenges (in many cases, articulated by those who first formulated them) within the context of HRD's most enduring, time-tested fundamentals. In other words, these books manage to be both timeless and as relevant as the challenges you now face in the rapidly evolving American workplace.

Plus, the books in *The New HRD Library* are designed so you can find useful information *fast*. And with that information, you probably can meet a challenge, solve a problem or defuse a crisis right away. It's a fact that HRD changes constantly, especially today. But I think you'll find, due to the care with which the contents of these books were selected and to the editorial strengths of the publications in which this material first appeared, *The New HRD Library* series will be as useful many years from now as it is today.

Philip Jones
Lakewood Publications

INTRODUCTION

Of all the things that trainers do, designing training is one of the most important. It is the nub of workplace education. The training function may be perfectly organized, its classrooms stocked with the latest in high-tech gadgetry and its managers well-versed on the latest imperatives from the corner office, but without good instructional design little will happen. Trainees won't learn much from a training course if it doesn't properly engage them. And those trainees' supervisors won't send any more employees to a class if the first batch of trainees didn't learn what they were sent there to learn. Indeed, bad instructional design is possibly the surest way to oblivion for a training department.

It is no coincidence that one of the most well-respected pioneers in the training field, Robert F. Mager, gained his considerable reputation on the basis of his contributions to instructional design. It was Mager who gave the training field its most succinct, but insightful, approach to instructional design. His 1962 book, *Preparing Objectives for Programmed Instruction*, laid out precisely what made programs effective. He maintained that it centered on instructional objectives. Good objectives, Mager said, delineated what a trainee would be able to do at the end of the program and how successfully she would be able to do it.

This observation cemented the primary distinction between education and training. Effective workplace training teaches an employee how to do something specific. That is not to say that corporate training departments don't also offer courses that are educational and deve mental in nature; they surely do. But as Mager pointed o the more concretely objectives can be drawn, the m likely it is that trainees will be able to clearly demonstra that they have achieved them at the end of the course.

Good objectives are so pivotal to proper instructio design that we have devoted a good share of this boo them. But we have included other things as well. After it would be difficult, if not impossible, for an instructio designer to write objectives without first having do sharply focused needs analysis. We have also included vice on how to keep courses interesting and useful to ticipants. To round out our view of instructional desi we've also included several articles on adult learning ciples and how best to incorporate them into your instr tional design.

Instructional design is where it all comes together. W drawn courses reflect the knowledge gained during needs analysis and serve as the blueprint for post-co evaluations. Designing courses properly is one of the important tasks a trainer can do. If this book can hel fine the thinking of the novice trainer and start vete trainers musing about this all-important topic, it will achieved its purpose.

Beverly
Associate Editor, TRAINING Maga
November

FRONT-END ANALYSIS

Here's an approach to looking at performance problems without assuming them to be training problems

The trouble with a training term that's on just about every tongue is: It's on just about every tongue. Used as a buzz word—"What this problem needs is a little front-end analysis"—the term can confuse as much as it enlightens. It sounds right, but is it really? This kind of question led us quite naturally to ask Joe Harless, coiner of the term front-end analysis, to join us in TRAINING's offices for an interview on the concept. Harless is president of the Harless Performance Guild, Inc. of Newman, GA, and author of the definitive book on the subject.

TRAINING: Joe, we want to begin by asking you straight out, is front-end analysis for real or is it just the Joe Harless *schtick?*

HARLESS: Front-end analysis is not anyone's *schtick*. It's not a *schtick*. It's very real—if you define real as having a definite set of procedures to follow, and data and case histories about its application along with a following of performance professionals who have embraced the procedures and are applying them in their work. If that is what "real" is, front-end analysis is as real a thing as anyone in the business of training could imagine.

TRAINING: Why front-end analysis? Why the name? Why the procedures?

HARLESS: It really began with training packages. We had been developing training packages and were very pleased with them—with their appearance, with the way they taught, with the test data we were getting on them. Our clients were pleased, too.

Despite all this—despite the fact that the trainees were mastering the skills and knowledge taught with our training packages and passed criterion referenced tests at the end—we wanted to see if they transferred those skills and that knowledge to the job. This led us to do follow-up evaluations which in those days we jokingly called rear-end analysis. And surprisingly, in spite of all our expertise in training technology, we found almost as many times as not that the skills were not in fact transferred to the job, that the trainees were not doing what our training packages had taught them to perform.

TRAINING: Why?

HARLESS: That, of course, is exactly the question we began asking and, being devotees of the scientific method, we advanced certain hypotheses. Perhaps the training objectives were not relevant to the trainee's real-world needs. Perhaps the training activities did not simulate the real world as closely as possible (we know that the closer the level of simulation to the real world, the greater the probability that those skills and knowledges will be exhibited).

Perhaps there was something in the environment that prevented the trainees from exhibiting the learned behavior on the job—a manager perhaps, or foreman who disagreed with our methods and would only reward our trainees for performance that was incompatible with what they had learned in training. Or perhaps the trainee had simply forgotten what we had trained him to do.

The scientific method demands that if you pose a hypothesis, you test it. So we began testing these hypotheses. In brief, we found that people don't do things on the job for one of three reasons: They don't know how to do them, they're prevented from doing them in some way or they lack the incentive to do them.

TRAINING: That seems simple enough.

HARLESS: It is. But its implications for the solution of performance problems are profound. That's where the concept of front-end analysis comes in. Rear-end analysis asks, Why didn't training produce a certain kind of performance? Front-end analysis asks, first, What are the symptoms and indicators that a problem exists? Second, What are the performance deficiencies indicated by those data—what is the performance problem? And, finally, What is the relative value of solving that problem?

TRAINING: Value? In terms of what?

HARLESS: In terms of money. Front-end analysis is about money first and foremost. So is training. If not, you're baby sitting or doing psychotherapy. But to continue, I was saying that with a problem identified, a significant front-end analysis question is, What is the potential value—that is, increased profits, reduced loss, etc.—of solving it. And is this potential value great enough to warrant our attention?

Assuming that the potential value is great enough to warrant an investigation, the next step is to ask ourselves, based on the data available, What are the possible causes—not probable causes, *possible* causes—of the problem? I have already indicated that our research indicated performance problems derive from one of three causes: a lack of skills and knowledge, a practical impediment or lack of proper motivation.

Hypothesizing one or more of these causes for a particular performance problem, we take the next step collecting evidence bearing on each hypothesis.

TRAINING: Can you give us an example?

HARLESS: Suppose a production line on which high-speed grinding wheels are used is having too many eye injuries. The workers are not wearing their goggles. We ask ourselves why—that's the basic front-end analysis question. And we hypothesize, first, that they are not wearing their goggles because they lack certain skills or knowledge—they don't know they should, they are not aware that their eye injuries can be prevented by the wearing of goggles. Or—our second hypothesis—they are not wearing their goggles because they don't *have* any goggles or don't have enough of them or they're locked up somewhere. Something is preventing them from performing as safe procedures would seem to require. Finally we wonder whether the goggles are uncomfortable or interfere in some way with their work. This would represent a motivation problem, our third hypothesis.

TRAINING: How do you test these hypotheses?

HARLESS: We ask for a demonstration. Generally if we want to know if a person can or can't do something, we have them do it on the work site or under simulated conditions if necessary.

> **"We found that people don't do things on the job for one of three reasons: They don't know how to do them, they're prevented from doing them in some way, or they lack the incentive to do them. That's where front end analysis asks, first, what are the symptoms that a problem exists; second, what are the performance deficiencies; and, finally, what is the relative value of solving that problem?"**

TRAINING: Can't you just go to the foreman and say, Hey, Tom, why aren't the men wearing their goggles?

HARLESS: You can. We do that—particularly when setting up a performance demonstration is difficult or terribly expensive. But we view this secondary evidence with some skepticism. The informant may have an axe to grind. He may be protecting his territory, covering his tracks, casting blame. So the data is suspect. We'd much rather

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training, but better, more cost-effective ways of producing human performance.

"The nature of the cause of a performance problem dictates the type of solution. That's a simple minded rule, but it tells you that if you have a training problem, you train. But if you have a motivation or incentive problem, you don't train. You do some other things."

TRAINING: You're talking about a different kind of function for the training professional.

HARLESS: Absolutely. This kind of performance analysis has vast implications for trainers. You know, trainers are forever going around looking for respectability. They're always asking, How can we sell management on the idea of training? Well, the answer is you don't. You sell management on the benefits of solving *human performance problems.* You make it clear to management that you are there to *avoid* training when it's not cost effective. That's how you get to be a hero. That's how you get to be respectable. That's how training directors become vice-presidents of human performance or training. That's how you avoid being stuck off in some personnel department somewhere.

TRAINING: But practically speaking, how can a trainer transform himself into a performance manager?

HARLESS: You apply a little front-end technology to your own situation. Suppose the boss comes to you and says, "I want you guys to produce me a 40-hour course on how to appreciate the beauty of the widget." Okay? Devotees of the performance problem-solving approach apply a little front-end analysis saying, Yes, boss, that's terrific. But do you mind if I ask you some questions—to get some of your wise counsel, etc.? That's another way of saying what front-end analysis is—it's all the smart questions a trainer or manager or consultant asks before he writes training objectives or does anything.

Anyway, the smart question in this situation—and all similar situations—is: What is the performance problem? If it's a performance problem, is it a skills and knowledge problem, an environmental problem, a motivational problem, or some combination of those, and what's the most cost-effective means for solving them? Is the cost worth it? And now—and only now—are we ready to talk about training objectives and detailed goals.

That's how you apply front-end analysis techniques to an existing situation where a problem has developed. In its purest form, front-end analysis deals with new tasks that an organization intends to perform. It deals with anticipating and avoiding performance problems rather than dealing with them after the fact.

Some examples. Your organization is going to convert to a new accounting system. What are the performance implications? You are going to install a computerized management system. What are the performance implications? You're about to make and market widgets. What are the performance implications? Asking questions about performance requirements before you implement a new program of one kind or another can save you a lot of embarrassin
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TRAINING: Is that kind of planning and program-shaping activity legitimately a function of the training department?

HARLESS: You're assuming there should *be* a training department. But I say there should be a *performance* department that deals with the analysis of problems as well as their practical solution.

You ask, should there be a performance department *and* a training department? Perhaps so. But my experience is that training personnel—at least in industrial organizations—have the best chance of doing the kinds of things I'm talking about. The word training may be a barrier because the layman, when he thinks of training, thinks of things like writing audiovisual scripts or standing up and giving instructions and so forth. And maybe you need a training department within a performance department to do this sort of thing. But it would seem easier to expand the capabilities of existing training departments rather than to create

ASK THESE FIVE QUESTIONS BEFORE YOUR NEXT NEEDS ANALYSIS

All journalists memorize the five questions that must be answered in a successful story—Who? What? When? Where? and How? Harry Langford, sales training manager of R.R. Donnelley and Sons, says those same questions should be answered by a needs analysis before all training or development programs are conducted. And Langford offers five necessary ingredients for answering those questions and concocting an accurate needs analysis recipe.

1. Assume that, as a trainer, you have a "piece of the action"— that training can help solve the problem (and may be part of the problem).

2. Keep the pulse of your company; know and understand what kind of shape your organization is in and what's happening within the corporate body.

3. Communicate and cooperate with the operating manager or supervisor whose department's need being analyzed. Determine if the pr lem requires additional skill, kno edge, or insight to solve by asking five questions.

4. Monitor the results of on-go programs. If the program's on targ then your procedures are probably curate; if not, find out what can done to get that program and oth back on the mark.

5. Pool your talents with others trainer's role, Langford says, is that the chef who mixes all the ingredie together to create a successful ne analysis recipe.

Reprinted from TRAINING, July

whole new performance departments from scratch.

TRAINING: You'd expand the capabilities of the training department rather than, say, the personnel department?

HARLESS: Yes, because performance is already the legitimate province of the training department. Modern-day trainers are talking about ultimate performance when they insist on having instructional or training objectives. It's no giant step for them to say that these instructional objectives must be based on performance requirements based on thoroughgoing front-end analysis. The training department is the logical department to develop these performance analysis capabilities. In fact, that's happening. In one of the large hotel chains, a department of performance analysis has been established and the man w heads it up—the vice president performance—was previously v president, training.

TRAINING: So you're not against training?

HARLESS: Absolutely not. I'm a votee of training. But *more rele training, more cost-effective trai* . . . a lot less silly training.

Reprinted from TRAINING, Marc

ASSESSING YOUR NEEDS ASSESSMENT

As a reactive process, it's essential. But a proactive needs assessment can be even better

BY BARBARA BOWMAN

Motherhood, apple pie and needs assessment. Everyone who's anyone in the corporate education business is quick to avow that a needs assessment is the essential first step in planning a training program: Before you try to correct a performance problem, you have to know what's causing it. The academic literature treats needs assessment as a given in any acceptable methodology. The Instructional Systems Development (ISD) model emphasizes needs identification. The American Society for Training and Development lists "needs analyst" as a critical role of the training professional.

Nevertheless, a 1985 survey of TRAINING Magazine subscribers found that 62% of the respondents do not do a formal, structured needs assessment for all training projects, and that only 47% "spend considerable time trying to discriminate between training needs and non-training needs."

It appears that while human resources development (HRD) professionals universally acknowledge the theoretical benefits of needs assessment, relatively few actually reap them. Conducting a vigorous needs assessment is like exercising, eating well and flossing our teeth: We all know we *should*, but. . . .

Why do so many trainers neglect needs assessment? Perhaps because they see it as a time-consuming process, little understood or appreciated by line managers, that yields few tangible results. After all, nobody ever says, "Great job, Perkins! That was a terrific needs assessment!" The response is more likely to be, "Are you still monkeying around doing research? When do we get the program?"

Nobody ever says, 'That was a terrific needs assessment!'

Needs assessment does pay off, however, for both the HRD staff and the organization. Properly conducted, a needs assessment not only identifies training needs, but also builds participant commitment, generates management support, increases the HRD department's credibility and provides data for that other sacred process: evaluation.

The key phrase here is "properly conducted." By following a few pr tical guidelines, you can ensure th your needs assessments produce the data you need to plan training, wh you build support among employees and managers for the process and resulting programs. If your needs assessment isn't achieving these resu ask yourself how well it meets these guidelines.

Don't wait to be asked

According to the ISD model, needs assessment is conducted whenever a line manager requests training or refers a problem to the training partment. Certainly such a request requires a detailed needs assessme but here the training department is acting in a reactive mode. It is the proactive type of needs assessment that so often is neglected.

A proactive HRD staff anticipates educational needs for the next year or more and develops the links betw the organization's strategic plan and its training plans. This assessme may have to be changed in respons to surprises or problems that alter th strategic plan, but it still serves as the basis for programming during a given time frame.

A proactive assessment can identify a variety of needs: retraini workers whose current jobs are to be phased out; preparing managers fo reorganization; offering stress management training to people whose jobs will be restructured; or anticip ing the launch of a new product line. An HRD department that waits to asked to develop such programs loses the chance to deal with these issu before they become problems.

In other words, a needs assessme does not merely determine whet training should be offered at all, or what type of program would be su able. The dog must wag the tail, not vice versa: Programs flow from sessment, not assessment from suggested programs.

Communicate the purpose

Once you decide to conduct proactive needs assessment, expl its purpose to everyone involved Managers need to know why you doing it, how the data will be used what to expect in terms of their ow and their staff's involvement, a how to respond to employee que

NEEDS ANALYSIS: WHOSE PROBLEM IS THIS?

We all know the commandment that says, "Thou shalt not pre-cribe training for a non-training oblem." We also know that if a de-artment manager or a supervisor lls you that someone in his depart-ent "has a training need," you're ot going to be able to help until you n determine who needs training: he employee, the supervisor or both.

As trainers at the Gulf Bank of Ku-ait, Graham Nugent and Pamela uckley received frequent requests help from managers of the bank's ,000 employees, who represent 80 ifferent nationalities. After an initial, frustrating scramble to be responsive, ugent and Buckley decided that some preliminary evaluation was in order.

Now, Buckley reports, "When a manager comes to us and points to a subordinate who is 'not performing up to standard,' we operate on the premise that at least three of the fingers on the accusing hand should be pinted in the direction of the manager."

To find out who actually is in need of training in such situations, Nugent and Buckley first meet with the requesting manager for some penetrating discussion. They go over the fol-wing list of open-ended questions:

- *Planning and organizing.* How you establish employee performance goals? How do you establish priority and time sequences for job tasks? How do you ensure that employees have sufficient resources to perform their jobs?
- *Delegating.* When assigning activities, how do you determine whether employees have the knowledge and skills a particular task requires? How do you encourage employees to perform on their own? How do you determine which responsibilities to delegate? When you have to "dump" some of your tasks on employees—and you both know they're undesirable tasks—how do you motivate them? How do you tell them that you'd prefer to see "recommmendations" rather than just problems? How do you balance your supervision between benign neglect and hovering over their shoulders?
- *Motivating.* How often do you discuss your employees' aspirations and ambitions with them? How do you ensure that your feedback is appropriate, timely and focused on improving performance? How do your employees know that you respect them? How often do you schedule time to talk with them? When planning assignments, how do you determine which employees' professional development needs will be served by giving them particular tasks to handle?
- *Directing.* How can clearly defined procedures increase the efficiency of routine tasks? How often do you request status reports when monitoring assignments? How do your employees typically respond when you provide timely and appropriate correction? What guidelines do you follow to ensure that your discussions with employees are confidential and professional? How do you encourage the airing of serious differences of opinion without creating hostility or anxiety?

This discussion itself is a form of one-to-one training for the manager, note Buckley and Nugent. Sometimes, they say, the session helps managers see that it's their behavior that needs to change, not their employees'. But if the manager is doing a good job, they move on to another set of questions:

- *Examine the job.* How is the job described? What is its purpose? What activities does it require? What are the performance standards?
- *Review training needs.* What knowledge and skills does the job require? Was the employee hired with these skills? Has anything new been added to the job since the employee began? Has new technology affected the job requirements? What training has the employee gotten?
- *Assess the individual's performance.* Are performance standards being met? What additional skills are needed? Does the employee have these skills?

Once they've gone over this last set of questions, Nugent and Buckley report, managers have a much better idea of what they want from the trainers, and the trainers have pinpointed where the need lies.

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ions. They also need to know how g the process will take.

To the uninitiated, a rigorous needs sessment may seem interminable; and indeed, gathering and analyzing ta is a lengthy process. To maintain the support of line managers, how-ver, develop a precise timetable at the outset and follow it conscientiously.

Employees also need to know the purpose of the assessment and the portance of their participation in order to develop realistic expectations of the process. Communicate what the needs assessment is *not* intended to accomplish as well as what it is. It will not, for example, lead to boosts or cuts in salaries.

When it comes to getting the word out, more is better. Some good ways to keep everyone informed: Give a presentation to managers that outlines the purpose of the assessment; write memos to all employees; attend staff meetings on request to answer questions; publicize your objectives in the employee newsletter; and designate one person in the HRD department to answer questions from employees.

A needs assessment is an ideal opportunity to develop management support for training by soliciting managers' active involvement in the process. The assessment *must* be perceived as the organization's project, not just the training department's project. Several strategies can help you accomplish this: Present the proposal and timetable to management for discussion and endorsement; ask the CEO or another executive to sign the memo announcing the needs assessment; ask managers at all levels for their input during the planning stage; interview key managers early in the process; give middle management an overview of the preliminary results and incorporate their comments into the final report.

It's not a questionnaire

Ever hear a trainer say, "I gave out a needs assessment"? A questionnaire is not a needs assessment. It may be one part of the assessment, but much more is needed.

It must be perceived as the organization's project, not just the training department's project.

An effective needs assessment synthesizes the organization's needs and the employees' perceptions of needs. If the employees' ideas are neglected, you are missing an opportunity to build commitment to programs. A two-year study at Children's Hospital of Wisconsin, for example, showed a significantly higher level of satisfaction with training programs among employees who had participated in a needs assessment than among those who did not participate.

Certainly employees are able to identify their individual needs, but their perceptions alone are not enough. Nor can the HRD department determine what the organization needs. If training is to have genuine impact, if concepts taught in class are to be reinforced on the job, if management is to support programs financially, a broad perspective is essential.

A variety of methods can help you objectively identify both individual and organizational needs. The strategic plan and objectives of the organization, performance appraisals, productivity and quality assurance statistics, minutes of safety and other committee meetings, exit interviews, customer complaints and plain old observation provide valuable information about the organization's needs. Interviews, questionnaires and focus groups are useful in identifying employees' perceptions of needs.

When you use a questionnaire, include respondents from various levels of management and compare their perceptions of training needs. If opinions vary, fine: You are still receiving valuable data. For example, if managers rate customer relations as a high-priority training topic while employees see it as of little importance, you may have uncovered a failure to communicate organizational goals or feedback from clients. This gives you another potential training need to investigate.

Watch you P's and Q's

In order to protect the credibility of the HRD department, use research methods that are above reproach. Base questionnaires on the results of interviews, not on preconceived notions or a review of the academic literature. Use appropriate sampling techniques to select people to be interviewed and to pretest the questionnaire before you circulate the final version.

Using statistics properly to analyze questionnaire results is a key issue here. Are you using appropriate measures? Applying the correct tests? Considering the correct indicators of significance? Trainers who are not comfortable with statistics may need assistance at this stage of the needs assessment. It will be well worth the investment, especially if the results will be reviewed by managers with expertise in statistical methods.

The HRD staff's reputation and credibility are not based on technical competence alone. Another crucial element is trust. If you hope to collect candid information, assure respondents that their answers will remain confidential and use the data only for the purposes you discuss with them. Managers should have the opportunity to react to findings of the needs assessment and provide clarification or further information before the assessment is complete. They should not receive unpleasant surprises in the final report. In short, apply the same ethical principles in a needs assessment that would govern any organization development intervention.

Is it a training problem?

One classic function of a needs assessment is, of course, to distinguish between problems that can be solved through training and those that require other solutions. You've discovered a disturbing number of customer complaints about certain services? A failure to meet production standards? Widespread resentment over certain management practices? Good. Now find out *why*.

Do the problems stem from a lack of skills or knowledge among certain employees (i.e., are they training problems?)? Or do they result from poor procedures, lack of feedback, inadequate supervision or some other factor that training alone won't fix? Once you make that determination, you should neither recommend training solutions for non-training problems, nor sweep training problems back under the rug.

A key use: to find out if a performance problem is, indeed, a training problem.

Address these issues and, if appropriate, recommend HRD staff involvement in interventions other than training. In some cases, a simple recommendation for further study may suffice.

Feedback

Now you have conducted a brilliant needs assessment that has produced incredible insights into your organization's needs. But no one will know about it—unless you put considerable effort into a report of your findings.

Prepare your report as soon as the project is completed. Include an introduction that clearly states the purpose of the assessment; the dates during which it was conducted; its specific objectives; an explanation of the methodology and sources of data; analysis of data gathered, including statistical analysis of questionnaire results; a statement of results and the needs that have been identified; and, finally, recommendations. Appendices should include copies of questionnaires and interview formats, observation checklists and other tools used in data gathering and analysis.

Results of the assessment may also be presented and discussed at a management meeting. In fact, the more ways you can come up with to communicate results to management, the better. None of these, however, eliminates the need for a permanent record of the assessment that can be distributed to all managers and routed to key staff.

Everyone involved in the assessment process deserves feedback about its outcome. At the very least, send a letter thanking them for their participation and briefly summarizing the results and the action to be taken. Feedback sessions with groups of managers and employees are even better. Features in company publications are another excellent way to communicate the results to all employees.

A needs assessment is not a one-time endeavor. Employees who spend time on a questionnaire or in interviews will be unlikely to participate a second time if they see no results from the first round.

Once the needs assessment is completed, plan to maintain the data flow begun during the process. Continue to monitor minutes of meetings, exit interviews, production standards and other sources of information so that further needs may be identified as soon as possible. Use needs assessments as an additional source of evaluation. The data can help you measure the overall impact of individual training programs on the organization's and employees' needs. If the programs are meeting real needs, subsequent assessments should show that the problems you're trying to fix have been at least partially alleviated. If not, you have a problem with these programs that needs immediate attention.

You also can use follow-up assessments to evaluate employee satisfaction with training and to correlate this satisfaction level with a variety of variables such as department, shift, job classification, seniority, education, etc. Keep this consideration in mind while you construct the original questionnaire so that you can establish baseline data.

These guidelines will not solve all your needs assessment problems. The process will remain time-consuming and challenging. Managers who are certain they know exactly what employees need will still see it as a waste of time. But these ideas can help you conduct a valid needs assessment that produces results that management will believe and support. And that's accomplishing a lot.

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THE 10 SEQUENTIAL STEPS OF THE TRAINING PROCESS

Here's a primer that will keep you on track

BY STEPHEN BECKER

The 10 sequential steps of what I call The Training Process include: 1) organizational performance analysis; 2) training-needs integration plan; 3) competency descriptions; 4) learning objectives; 5) participant analysis; 6) learning design; 7) evaluation and measurement; 8) learning program administration; 9) reporting individual progress, and 10) assessing organizational achievement.

Because all training is aimed at some kind of organizational improvement, this process is based on experience and is appropriate for trainers involved in organization development, management or supervisory development, sales training, professional/technical training or skills training. In other words, when training is done in an organization, The Training Process is followed, whether it is formalized or not. If you think about what happens when you decide to conduct a program, you'll realize that somebody at some point must perform some activity that relates to each of the steps.

1 **Organizational performance analysis** is based on the idea that training programs can be part of the solution to organizational performance problems. This first step, then, involves examining operational data to identify possible organizational problem areas, conducting reality tests to verify problems, determining behavioral and nonbehavioral causes of problems and deciding on behavioral and nonbehavioral solutions to causes. Training, then, is a potential solution to a behavioral problem cause. In addition, some training may be required to solve the problem, and some may be desired but not required. In this first step, the trainer must be proactive and competent at involving line managers in a problem-solving, decision-making process that leads to both training and nontraining solutions to key organizational problems. The trainer is, in effect, process consultant at this point rather than a content expert.

2 **A training-needs integration plan** should be a one-page statement of responsibility and accountability that identifies who is to do what, by when and at what estimated cost. It incorporates the responsibility of the training department to implement the training part of the solution. It also includes the responsibilities of other departments to implement nontraining solutions. It serves as the basis for assessing organizational achievement (step 10).

In a sense, the training-needs integration plan is a contract in which everyone involved makes a commitment to some action. The training department should prepare the plan and distribute copies to the other people involved. Both steps 1 and 2 are really part of the training manager's job. Such a plan forces consensus, gives training membership in management, provides for the sharing of responsibility, clarifies the training required, promotes thorough planning, creates realistic solutions and gives training a businesslike image in the organization.

3 **A competency description** looks at a job family and describes the competent performer. It includes basic knowledge, areas where deep understanding is required, skills, values, attitudes and interests. It covers the cognitive, behavioral and affective aspects of job performance, and describes the performer, not the job to be performed. Essentially, it serves as a basis for learning objectives. Without competency descriptions, objectives will tend to be only knowledge or skill focused. Frequently, some important objectives will be omitted from the training program if you aren't aware of what constitutes competency.

4 **Creation of learning objectives** is based on the work of Robert Mager as it relates to goal analysis and to writing behavioral objectives, including performance, conditions and criteria. It is also based on the work of Malcolm Knowles and his concepts of self-directed learning and learning-contract development.

5 **Participant analysis** seeks to identify not only who will participate in the training but in what order people will participate. An important part of this step is deciding how to structure learning groups in terms of size, sex, age, experience, etc., so that participants have maximum learning opportunities.

6 **Learning design**, incorporates the best arrangement of time, methods, materials, media, equipment and instructor resources. The design must have flow and rhythm and meet the learning objectives in the most effective and efficient manner. The design is created before any learning materials are developed. Part of what is derived from the design step of The Training Process is an accurate projection of how much the course will cost in terms of money and time. It also allows you to identify what instructor competencies will be required.

7 **Evaluation and measurement** are not the same. Evaluation determines how much learners learned and whether or not the course does what it is supposed to do. That is, did people learn what you intended them to? Measurement refers to the procedures employed to reach an evaluation; examples are tests, questionnaires, observation and interviews. This step in the Process requires an evaluation design and trainer competency at correctly utilizing procedures so that valid conclusions are reached.

8 Learning program administration is involved with contingency planning. It considers the learning design and then tries to predict what will or could go wrong before, during and after the learning program is conducted. Examples include travel arrangements, hotel accommodations, food service, schedules, equipment failures and learning reinforcement.

9 Reporting individual progress considers the types of reporting formats that are appropriate for different people. For instance, there should be different ways to report results to high-level executives and to the immediate supervisor of a trainee. Philosophical questions concerning confidentiality, organizational politics and affirmative action laws all require answers at this point.

10 Assessing organizational achievement. This step brings the Process full circle back to steps 1 and 2 and examines whether or not everyone who was responsible for some organizational improvement solution lived up to his or her commitment. It recognizes that training alone cannot make significant, long-lasting organizational changes.

This step assesses the results of training in relation to the other solution activities that were implemented. Additionally, this step prevents trainers from being unfairly blamed for poor organizational performance. In effect, it can help analyze and clarify exactly where blame or credit should be placed.

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SCORE YOUR PROCESS COMFORT LEVEL

If you've read the accompanying article, you are at least familiar with the 10 steps in the training process. But how *comfortable* do you feel about your competency as a trainer in these areas? The following self-scoring questionnaire can help you find out. One value of the scale is that you can repeat it as often as you like to track your own professional growth.

While it's not intended to be scientific, the comfort scale can help you pinpoint the areas where you need or want more professional strength. And that may prompt you to spend some of your training budget on yourself—for a change.

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THE TRAINING PROCESS™ COMFORT SCALE

DIRECTIONS:
1. *Place a "P" on scale for present level of comfort.*
2. *Place a "D" on scale for desired level of comfort.*
3. *Calculate gap score for each step.*
4. *Add gap scores for total gap score.*
5. *Calculate % for improvement.*

Training Process Steps	No Comfort 0	Low 1	Medium 2	High 3	Total Comfort 4	GAP
1. Organizational Performance Analysis						
2. Training Needs Integration Plan						
3. Competency Description						
4. Learning Objectives						
5. Participant Analysis						
6. Learning Design						
7. Evaluation & Measurement						
8. Learning Program Administration						
9. Reporting Individual Progress						
10. Assessing Organizational Achievement						
	Total Gap Score Divide total gap score by 40. Subtract from "1.00" to get felt need for improvement %. $1 - \frac{G}{40} =$ ___%.					

THE TRAINING WHEEL: A SIMPLE MODEL FOR INSTRUCTIONAL DESIGN

Complex instructional technologies that work wonderfully in theory sometimes prove unwieldy in practice.
Here are some streamlined design suggestions from a pragmatist

BY ROSALIND L. ROGOFF

Systems models for developing instructional materials abound. The base ones, such as the Instructional Design Institute and Instructional Systems Development models, have been around for years and have been thoroughly embellished.

These models may be fine for theoretical study in graduate courses on instructional technology. As a trainer in industry, however, I find that a simpler, more pragmatic approach works better.

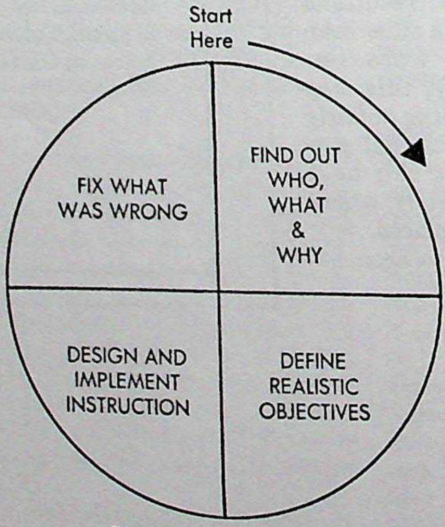
I have boiled down the systems approach to create a commonsense instructional-design model consisting of four simple steps (see figure). The model is in a circular format, rather than the usual series of boxes, so I call it the Training Wheel—but you don't need a bicycle to use it. Directions for use are simple: Start at 12 o'clock; turn clockwise; spin around as many times as it takes to get where you're going.

Step 1. Find out who, what and why

If you're acting as a teacher or trainer or instructional designer, your job is to figure out how to teach something to somebody. Therefore, the first question you need to answer is: What are you going to teach to whom, and why?

Here we're taking three "Ws" from journalism—"who," "what" and "why"—and relating them to the instructional-design process. Everything else you do hinges on how well you answer this question, and on how well you relate your later instructional objectives and methods to the answer.

You might consider the question to be a combination of needs assessment and audience analysis. Although most models show these steps separately, in real life you usually start a project knowing *something* about who or what you will be teaching. And in any case, the "who" and "what" are inseparable:



THE TRAINING WHEEL

You can't create instruction without a student and a subject.

The "why" component is often overlooked, yet it is very important. If the student doesn't know why he is studying the subject, and you don't know why you are teaching it, what's the point of developing the instruction at all?

Let's say you are a subject-matter expert assigned to teach peop h to operate a word processor. You k all there is to know about this p lar machine; now you need to find who has to be taught to use A they secretaries, technical writers managers? In what different ways each particular group use the w processor, and why? Obviously, th differences should influence ho design your instruction. If you want motivate managers, you must co up with a "why" that will justify th investment in time and energy.

On the other hand, you might kn a lot about the audience but not about the content of the training. Le say the accounting departme you to develop training materials all newly hired auditors. In thi your first step is to identify the spec tasks that new auditors are ex to perform, and how quickly they a expected to do these tasks minimum level of proficiency. Sin this is the job they have been hi do, the "why" of the training is obvio

Step 2. Define realistic objectives

It is crucial to define realistic, le objectives. Simply writing an objecti that fits Robert Mager's well-kno criteria is not enough. The objecti and any methods you devel evaluate them, have to relate to wh you found out in Step 1 (i.e., the "wh "what" and "why"). An objective suc as "trainees will be able to list th goals of cost accounting" is almo worthless if what the employees to be able to do is audit expens reports.

A lot of silly objectives are impose on training because of the per need to make everything measurab Don't be *too* afraid of what called "the fuzzies." A fuzzy goal th fits your "who," "what" and makes a better objective for designi training than a measurable per ance objective that measures som thing nobody needs to know or d

Start out with fuzzy goals an gradually whittle these nebu targets into performance-oriente shapes. Develop exams and c evaluation materials in conjunctio with the objectives. If you cannot co up with a way to measure every o jective, don't despair. In many trai situations, formal evaluation pr cedures may be optional.

What? Not evaluate? Sacrilege! W bother to define objectives then?

Because objectives, however f are the end result of the "who," "wha and maybe even the "why." Objec are the road maps that direct yo instructional methods to their lo destination. Proving that you reached this destination may be more a matter of instinct than precise evaluation.

Often instructors use evaluations to prove that their training methods worked—everyone passed the test. But if the student is being trained in a job skill, his subsequent ability to perform the job is the real evaluation. Keep in mind that it is more important for the student to feel that he has *learned* something than for the instructor to prove he has *taught* it. In a real-world situation, students and their supervisors will let you know exactly how well the training worked for them.

Step 3. Design and implement the instruction

Prepare the curriculum. Write the textbook. Teach the course. Show the videotape. Do the whole song and dance. But remember to keep the "who," "what" and "why" foremost in your mind while you design the training.

Don't show a videotape just because you have one that sort of fits the subject. Don't design a lot of fancy graphics just to dazzle the class. If the course materials you develop don't support your objectives, they are superfluous.

But, you say, the students need some background in the history of the company in order to put what I'm teaching them into context. Fine. If it's a necessary part of the "why" component of Step 1, go back to Step 2 and write an objective for it. Your objective in this case is more likely to be affective than cognitive, but you do have to pinpoint exactly what students need to know about the company and why.

If you end up ducking eggs and tomatoes, you know your course needs a great deal of fixing.

Sometimes the dryest, dullest presentations are the most effective for a particular training situation. I came from a film and TV background, so it took me a long time to realize that although punching up a course with visuals is fun, entertainment does not equal good training. If students need to learn how to fill out an "audit summary report form," showing pictures of the form, describing it and talking about its evolution will not teach them to fill it out as well as an exercise in which they actually *do* fill it out. Dull, yes, but effective.

Step 4. Fix what was wrong

Using the evaluation measures you developed in Step 2, find out which elements of your design worked and which didn't. Fix the things that didn't.

Ask for trainees' opinions. Give them a questionnaire. Send another questionnaire to their supervisors. Observe some former students working on the job. And use your own instincts. Sometimes you can just feel when things are wrong.

If you end up ducking eggs and tomatoes, you know your course needs a great deal of fixing. In formal design models, this process is known as evaluation, feedback and revision. In "pre-systems" days, it was called trial and error. I call it time to take another turn around the Training Wheel.

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TEN BENEFITS OF PARTICIPANT ACTION PLANNING

Why do experienced trainers run programs that work better than yours? For one thing, they're probably using PAPA

BY ROBERT B. YOUKER

The ultimate purpose of training employees is to improve an organization's results. The way training does this is by producing—or setting the stage for—a change in individual behavior on the job. As far as job-related training is concerned, "transfer of learning" from the classroom to the actual working situation is not just *an* issue, it's *the* issue. That's where PAPA comes in.

The Participant Action Planning Approach is a simple but powerful process that requires each trainee to prepare a list of concrete actions or changes he or she plans to make back on the job once the training program is over. A number of modifications or enhancements can be added to the basic PAPA model, and variations of the model itself go by a lot of names. But the intent is the same: to encourage changes in behavior back on the job.

What is a "concrete" action plan? In a 1978 article in *Management Review* titled "What Makes Sense in Management Training?" William G. Dyer had this to say:

"After the training-practice-feedback activities, each manager develops a detailed plan of action for implementing new behaviors in the back-home setting. The plan specifically includes what actions will be taken, who will be asked to support the action, when it will start and how success or failure will be evaluated.

"If the program is held within a single company, all managers should review these plans with their bosses. In 'stranger groups,' participants should critique each others' plans, but are urged to share the plans with their supervisors back on the job."

Action planning is hardly a new concept. In the United States, the basic idea was proposed by Prof. James N. Mosel of the psychology department at George Washington University. In the late 1970s, Ruth Salinger and others in the U.S. Office of Personnel Management developed Mosel's idea into an organized process for action planning as a method of evaluating the success of training programs. When PAPA is used as a tool for evaluation, the organizer of a course follows up on the action plans at some later date (six months after the training is a popular choice) to see what changes actually have occurred.

What benefits does action planning offer the trainer? The accompanying figure shows a model or flowchart of a management training process, including the three key areas calling for evaluation: learning, behavior and productivity. Action planning provides benefits at all three levels.

Here are 10 of PAPA's bene s.

1 *Transfer of learning.* The
actions to be implemented
on the job starts the process o
ing transfer. An action plan is a
ten list of goals similar to thos
tiated in a management-by-objec
(MBO) format. The goal-setting
cess helps each trainee establi
level of aspiration for putting
training to work—for implem
the desired results of the program

2 *Verbalization and commitm*
The process of discussi
participant's action plan in sm
groups leads to individual c
ment. Talking about what you plan
do doesn't guarantee you'll do it,
it increases the likelihood.

3 *Practice for implementatio*
ing the small-group discuss
each trainee also works out so
tative strategies for putting the act
plan to work. What problems m
arise? How could those proble
overcome? This process of build
confidence can be strengthe
there is time for rehearsal and
playing to simulate condition
on the job.

4 *Contingency planning.* Onc
start mapping out strategies
how you're actually going to a
plish something back in the "
world," some serious potential
cles are likely to surface. The ins
tor can coach trainees and pr
support in developing contin
plans.

5 *Commitment to action.*
process of preparing an
plan can create a self-fulfilling p
ecy. In addition to focusing atten
on post-training activities, the
ning process also will generate co
mitment to action.

6 *Expectation of follow-up*
commitment to action is r
forced by the trainees' knowledg
there will be some sort of follow
the actual training. Participants k
that in six months somebody
around asking about their prog
and expecting answers.

7 *Reinforcement via follow-up.*
actual follow-up is also a pow
motivating force. First, it is a

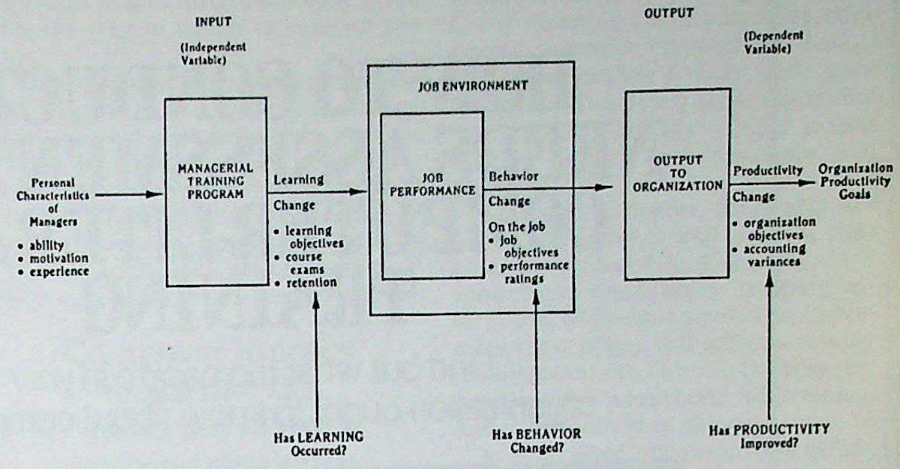
chanical reminder of the action plan. The follow-up counters the ubiquitous "out of sight, out of mind" problem. In addition, it can generate a "Hawthorne Effect"—the phenomenon whereby desired behavior increases simply because employees know that somebody cares and is paying attention. The process of communication during the six-month check also is rewarding or reinforcing in the Skinnerian sense. This is particularly true if the trainee's supervisor is involved in the follow-up process.

To quote again from William Dyer, "Unless training is followed up and reinforced, it dissipates quickly. Follow-up procedures should include review sessions with the participant's boss, in-company support teams that meet regularly to review results of the action plan, reassembly of the instrumented data several months after the training program, direct consultation by internal training and development personnel, one-day follow-up training/practice/feedback sessions."

8 *Supportive post-training environment.* The six-month check on participants' progress with their action plans also can identify constraints in the environment that have prevented them from changing their behavior or achieving their goals. Ideally, the supervisor and/or the organization took steps before the training even began to ensure that trainees would return to a working environment that supported and reinforced the behavior they would be taught to adopt. The post-training interview provides an excellent opportunity to uncover any environmental factors that are blocking the desired behavior instead of encouraging it. These factors can involve anything from the way equipment is designed to the attitudes of superiors, subordinates and peers.

9 *Evaluation of behavior change.* The process of identifying and analyzing which behaviors in the action plans have been implemented is, of course, an extremely important step in evaluating the effects, and therefore the value, of the training program.

THE TRAINING EVALUATION MODEL


INPUT
(Independent Variable)
OUTPUT
(Dependent Variable)
JOB ENVIRONMENT
Personal Characteristics of Managers
• ability
• motivation
• experience
MANAGERIAL TRAINING PROGRAM
Learning
Change
• learning objectives
• course exams
• retention
JOB PERFORMANCE
Behavior
Change
On the job
• job objectives
• performance ratings
OUTPUT TO ORGANIZATION
Productivity
Change
• organization objectives
• accounting variances
Organization Productivity Goals
Has LEARNING Occurred?
Has BEHAVIOR Changed?
Has PRODUCTIVITY Improved?

Source: Azevedo and Pinto In Determining the Payoff of Management Training, *Richard O. Peterson, editor (1978, American Society for Training and Development, Inc.).*

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10 *A system for organizational change.* A major additional benefit from PAPA can be achieved if the trainee and his or her superior work *together* to define the objectives of the training, in behavioral terms, before the training starts. This not only helps to produce more realistic training programs, it also commits the supervisor to developing a supportive post-training environment. In this way, PAPA can be expanded into a total system for encouraging organizational change, a system that exploits the Hawthorne Effect and many principles of learning transfer with happy results.

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HOW TO CONDUCT A NEEDS ASSESSMENT FOR COMPUTER-LITERACY TRAINING

Find out what the people in *your* organization ought to know about computers

BY RON ZEMKE

Want to drive yourself a little nutty? Find a quiet cubicle with a WATS line, a list of phone numbers for a dozen or so computer-literacy training vendors, and a big note pad. Ring up the experts on your list and ask two questions: "What is computer literacy?" and "What do people in *my* organization need to know—or be able to do—to be considered computer literate?"

In about an hour you will conclude that "computer literacy" is a true humpty-dumpty term, meaning almost anything the person using it wants it to mean. The main generalization you can make is that the computer to which it refers is a microcomputer; people who use the term are almost never referring to "professional-level" competence involving mainframes or minis.

You also will conclude that a remarkably wide range of opinion exists about what one must know to be certifiably computer literate—that state of grace we've all been told is essential to achieve if we are to be considered "modern," "with it"—and employable—during the last two decades of the 20th century.

And don't be surprised if very few of the experts you poll say much about "needing to know your organization better" before they can give more than an approximate answer to either query.

It's an exercise with which we've been involved for several months. It suggests to us that the concepts of computer literacy and of the training needed to achieve same are as fluid and changeable as the exploding technology they attempt to describe for those who don't know a RAM from a ROM and aren't sure they need to. The exercise also led us to believe that those involved in building and delivering computer-literacy training have their hands full keeping that training up to date and pedagogically viable. Training vendors in this field tend to be solo practitioners or small consulting organizations. Needs assessment, custom tailoring and the like are more than most of them can put on their plates right now.

Why needs assessment?

Since personal computing *is* so new and *is* advancing so rapidly, it may seem a bit superfluous to be talking about needs assessments involving computer literacy. Isn't it sufficient simply to assume that everyone in the organization who doesn't tell you otherwise is at ground zero, and send them all off for basic training?

In fact, the answer may be yes. If you work in a small organization—under 50 employees, say—and this big crate full of new Polar Bear 77 microcomputers represents your organization's first significant contact with computer equipment, then it may make perfect sense—at least as a start—to send everyone to Maud and Phil's one-day "Computer Boot Camp Seminar" at $29.95 a head. Allowing that Maud and Phil are really familiar with the Polar Bear and that their approach is applications-oriented, their seminar and an in-house users' group (for support and self-help) might stand you in good stead.

But if you are, say, Ray Hass, and your job is manager of data-processing education and training for the 3M Co., you face quite a different challenge. When your computer-literacy training has to address the needs of 88,000 people worldwide, "effective" and "efficient" become critical criteria; and matching specific learning needs to specific training options becomes an important part of your strategy.

"'Computer literacy' means something different at every level organization," Hass points out. means we have to start by dete just what it means for each of many different audiences at order to intelligently presc training."

Because he is obliged to define puter literacy as a variable ins a constant, Hass' approach to puter-literacy training has many ets. "We have an in-house program educate executives on modern processing; the analysts in our [personal computing] depart hold awareness seminars for agers and professionals interested sizing up personal computing option; and we use a variety of sources—from computer-based ing to outside computer schools skills training.

"We could never build a staff enough to meet all our com literacy training needs," he conclu "But we can define them acc and manage the way they are met

After talking with Hass and training and data-processing peo in small, medium and large org tions, as well as with a variety computer-literacy training pur we are comfortable concluding many small organizations may to slide into the modern compu era without a lot of ponderin study—which is fortunate, becau pondering and study can get sive. But those 200,000 or so Americ organizations with more than ployees will be better served with clearly focused and articulate proach to computer-literacy training

That means you have some tions to answer. What roles will puters play in your organization? do you want your people to work computers? Who, if anyone, "general" knowledge about how puters work? Who, if anyone, needs be trained only to perform sp tasks on specific machines? Who, anyone, ought to receive enough vanced training to enable them to computers to expand or modify contributions to the organization ways you can only guess at?

Having pieced together the views a variety of experts on both com literacy and needs assessment, recommend a five-step proactiv proach for determining an organ tion's computer-literacy tra needs. It begins, as Ray Hass a others suggest, with understa what computer literacy is—and is no for your organization.

But first . . . step zero

If defining computer litera

where your needs assessment begins, Step Zero of the process is to take the data-processing director to lunch. Two reasons:

First, it is valuable to get to know the one person in your organization who can be considered computer literate in any man's army, who is least likely to be either computerholic or computerphobic, and who can, by virtue of his or her position, play a vital role in your effort to bring computer literacy to yourself and others. (Surprised by our claim that DP directors are unlikely to be computerholics? We find that they tend to be overworked people who are too busy trying to get computers to perform practical tasks to wax poetic about the magnificence of the Information Age.)

Second, it is critical that you identify your organization's attitude and policy toward remote computing and computer literacy for the masses. Your company's policymakers—particularly its DP policymakers—will have certain feelings about the notion of "a computer on every manager's desk," and about plebeian access to computer power in general. Those feelings will have a powerful influence on what computer literacy means in your organization and, ultimately, on the content and conduct of any training you undertake.

Even if you work in one of those organizations with a mandate from the CEO to "Get thee hence and bring my people computation!" you will need the support, goodwill and help of your data-processing pros.

When you corner the DP chief—and you must keep this up for however long it takes—you need the answers to three questions before you can carry out your quest for the functional definition (or, more likely, for several definitions) of computer literacy upon which the rest of your efforts will hang.

1. *Does your organization take an "institutional" or a "personal" view of desk-top computing?* This distinction is one that gets a lot of ink in *Personal Computing* magazine, whose editors consider it a key issue in the transition from Industrial-Age to Information-Age views of work.

Personal Computing's managing editor, Ernest Baxter, defines the *institutional* approach to desk-top computing to mean: "...computers are brought into a complex and hooked up one to another in production-line fashion.... Limits of use are imposed....The product of each machine [is] assembled at the end of the line into one whole unit....The machine's functions are... tightly proscribed until...the machine will only do that portion of the job it has been limited to do.…A person is brought in and instructions are given on the way in which to operate the tool."

The "personal" approach, according to Baxter, is the polar opposite of institutional computing. It involves "...an exploration of the potential for individual productivity...unencumbered by...constraints imposed before the individual appears on the scene....Individuals are offered an opportunity [to use] the computer to accomplish their jobs...limited only by their own initiative, creativity...[and] will to succeed. No limitations are imposed on the tools....The tool becomes an extension of the mind of the user."

Computer literacy looks like the most pervasive training challenge of the '80s and '90s.

It's not difficult to guess which approach Baxter prefers. But we've noted that quite a few (dare we say a surprising number of?) good-sized organizations seem inclined to lean toward the "personal" computing concept. If yours is one of them, there is a broader range of possible answers to the next two questions than if your company takes the "institutional" view.

2. *Does the organization have an "open" or "closed" policy toward the implementation of desk-top computing?* You need to know how desk-top and remote computing will be introduced—or are being introduced—to the organization. Will the company provide counsel and advice to individuals and/or departments that want to look into desk-top computing applications? Or will the organization—and in particular the DP people—be satisfied with a laissez-faire approach, merely blessing the endeavor from afar?

As you might guess, the latter "open" policy makes for nervousness in the controller's office and gives internal auditors fits. On the other hand, rigid control seems counterproductive and may be, in fact, a fantasy option. Small computers have become inexpensive enough that managers who really have the hots for desk-top or remote computing can simply dig into their own pockets if the organization is exerting too much control.

As one DP trainer we interviewed suggested, "Microcomputers are like mushrooms: They pop up overnight. Every morning there's another computing machine on another desk. I think the cobbler's elves have gone high tech." The point, of course, is that "control," realistically, simply means making expert help available and desirable.

That said, however, there still are *levels* of openness and control that must be explored and understood if your computer-literacy training efforts are to be on target. The implementation policy will affect not only training content, but also the way you position the availability of training, and your method of delivery.

3. *Has your organization established a policy regarding makes and models of hardware and/or software? If not,* will *it establish such a policy?* If your organization already has mainframe or minicomputers, data-processing people will have some strong opinions and recommendations about the makes of micros and types of peripherals and software that will be most compatible with existing systems.

If those recommendations already are being heard, you have an indication that your organization is taking the computer revolution seriously and that the topic of computer-literacy training is about to become an important issue.

Step 1. Look at the literature . . . and live to tell of it

Once you've come to grips with your organization's philosophy about desk-top or remote computing, you are ready to tackle the task of building a functional definition of what computer literacy means to you. There are a multitude of opinions about what that definition should say—too many to expect any sort of consensus.

Your best bet, and a quick way to ground yourself, is to spend one day in a bookstore and one day on the phone pumping experts for their views and opinions. The box on page 26 contains a sample of opinions we got during a longer version of that process.

How will you know when you've heard enough to move on? Simple. When your last three sources fail to produce a single idea you haven't heard before, discounting different wording, it's time to proceed to Step 2.

Step 2. Bring the search back home

Armed with a clear conception of your organization's philosophy, policy and attitude toward computers, and a fistful of computer-literacy definitions from the experts, you can begin the process of pasting together a definition—or several definitions—of what the term means in your situation. The starting point is to find out what computer literacy "looks like" when it is embodied by people in your organization.

In classic needs-assessment parlance, you have to determine what "competent performers" in your organization know and/or are able to do. In this case, competent performers are people who already are computer literate—by anybody's definition. With any luck at all, your organization will contain at least a few.

Where do you look? The key, again, most likely is the data-processing department. The same people who understand and probably have shaped the organization's data-processing and remote-computing policies are going to have an equally strong set of opinions about what ought to constitute "computer literacy" at the nonprofessional level.

Your DP experts also are very likely to be able to point you to any people in other departments (sales, production, accounting, engineering, etc.) who already are using microcomputers successfully. These "early innovators," as market researchers call them, probably have made themselves known to the DP pros. After all, what "hacker" can resist the temptation to "interface" with real "computer jocks"?

Ask the DP people to finger anyone they can think of who falls into one of two categories: "competent computer user" or "frustrated computer struggler." You will want to interview individuals from both groups.

Each group, including the DP experts themselves, has a special viewpoint to add to your mixture. DP people have the "should knows" and "ought to be able to's," as well as knowledge of the organization's information and data-handling needs.

Successful users in other departments represent your nonprofessional "competency models." From these people you will find out how computers are used and what they can do in various branches of the organization, and the type of skills and knowledge required to make them do it. You will want to find at least one competent computer user in every department for which you suspect you may need a specific definition of "computer literacy." If the potential role of computers in the production department is clearly going to be different from their role in engineering, and nobody in the production department is using a computer successfully, you may have to go outside the company for competency models relevant to your situation.

The successful users also have personal histories of learning, often heavy on trial-and-error. "If you were to start over again..." is an excellent preface for questions to this group. Ask how they use desk-top computing. Ask them to react to your accumulated definitions of computer literacy.

The unsuccessful users will be good sources of information about how things go wrong. Why did they find computers disappointing? Where was needed support lacking? What were they unable to master? This is vital information for the lower limits of your definition of computer literacy—and for the structure of your training.

Are you dealing with a 'personal' or an 'institutional' approach to computing?

Step 3. Define computer literacy . . . your way

By now you should have enough information to build a working draft of what computer literacy means in your organization—and more importantly, what it will mean in your training effort. So write something.

The flavor of the computer-literacy definitions in the accompanying sidebar will help. But most of all, you need something for people to react to; to say, "Yes, that's it," or "No, there is more to it than that"; or "Good, but shouldn't we add...."

Statements such as, "...should be able to use a published spread sheet to...." are preferable to "...should be able to use VisiCalc (or Lotus 1-2-3, or dBase II, or DataWriter) to...." Your statements, in other words, should be relatively general. And at this point, you are *not* trying to come up with a list of specific training objectives for people at various levels in the organization: You'd wind up with a book, not a definition. At the same time, your definitions must be specific enough to serve as meaningful standards against which to evaluate training designs, products and services for specific levels in the organization.

For example:

Worldwide Widget sales personnel should be able to use the Polar Bear 77 personal computer to manage an array of activities, using published and specially designed software programming. Account analysis, time and route planning, order pr and correspondence are l which personal computing prove productivity, and fo cedures have been worked o WW's view, however, tha bilities for productivity impr inherent in personal con limited only by the imagina our employees.

Or:

Smorg Foundries believ crocomputers can be of sign use to superintendents visors for scheduling, planni costing purposes. Special programs have been develop these applications, and in their use with our new Pola 77 hardware will soon be The automation of these proc another step in Smorg's de the principle of providing the most advanced tools niques in the industry.

Notice that Worldwide statement is clearly a cred sonal computing, while Smorg mistakably institutional Both reflect the philosophies and personal computer-liter required in those organizations

Step 4. Quantifying the need

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You *could*, of course, process once you have develop accepted set of definitions, building and buying training est-sized organizations, those to 200 employees, that may advisable. The worst outcome approach would be that some would need a second turn at th ing if it is geared too high—th assumes too much—while oth ple might go unchallenged geared too low.

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- *Multiple levels of definiti* are, in fact, faced with multiple tions of computer literacy, st organization level, rather than single definition.
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Worldwide Widget sales personnel should be able to use the Polar Bear 77 personal computer to manage an array of activities, using published and specially designed software programming. Account analysis, time and route planning, order processing and correspondence are key areas in which personal computing can improve productivity, and for which procedures have been worked out. It is WW's view, however, that the possibilities for productivity improvement inherent in personal computing are limited only by the imagination of our employees.

Or:

Smorg Foundries believes that microcomputers can be of significant use to superintendents and supervisors for scheduling, planning and costing purposes. Specially designed programs have been developed for these applications, and instruction in their use with our new Polar Bear 77 hardware will soon be available. The automation of these processes is another step in Smorg's dedication to the principle of providing you with the most advanced tools and techniques in the industry.

Notice that Worldwide Widget's statement is clearly a credo for personal computing, while Smorg's is unmistakably institutional in intent. Both reflect the philosophies, policies and personal computer-literacy levels required in those organizations.

Step 4. Quantifying the need

The final information-gathering step involves testing your definition against what people in the organization already know about computers and computing. Finding out where people "are" compared and contrasted with where they "should be" is the heart of the needs-assessment process; everything else is make-ready work.

You *could*, of course, stop the process once you have developed an accepted set of definitions, and start building and buying training. In modest-sized organizations, those of 100 to 200 employees, that may even be advisable. The worst outcome of this approach would be that some people would need a second turn at the training if it is geared too high—that is, if it assumes too much—while other people might go unchallenged if it is geared too low.

There are, however, at least four circumstances under which you definitely should continue your needs assessment to Step 4.:

- *Multiple levels of definition*—You are, in fact, faced with multiple definitions of computer literacy, striated by organization level, rather than with a single definition.
- *Heterogeneous functions*—Your organization, although small, performs several very dissimilar functions.
- *Lots of employees*—The more people you have, the more any small sav-

ings you achieve through efficient training will add up.

- *Many desk-top computer users on staff*—When you already have a lot of people doing personal computing, it is important to identify beginning, intermediate and advanced users, and to treat each group according to its needs.

Under any of those circumstances, failing to classify your trainees correctly can be very expensive. It becomes prudent, then, to test individuals in the organization against your functional definition of computer literacy.

Here are four techniques to consider for this task. Any two used in concert should yield a true reading of your audience.

1. *Structured one-to-one interview.* Interviewers using a structured questioning guide ask a sample of employees what they know and how they feel about remote or desk-top computing. What are the reservations? How do they feel computers might affect their jobs?

Karl Albrecht, a San Diego-based psychologist and consultant who has begun to concentrate on computer-literacy training, recommends that you tap into more at this stage than just the skills and knowledge of employees. "I believe we are doing a great disservice to people," he says, "if we don't recognize first that some of them are very reluctant to be involved with computers. We call those people 'technophobes,' though that is probably too strong a term—no normal person is phobically afraid of computers.

"This computer fear has a range of causes. Some simply fear they will cause the thing to explode if they press the wrong keys. Others fear for their jobs; they aren't sure the computer won't eventually replace or at least 'robotize' them. Still others are panicked that they will never master the computer and will 'flunk out' organizationally."

Albrecht observes that something as simple as a lack of typing skills can create panic. "People who don't type sometimes fear the keyboard; others associate keyboards with typewriters and secretaries, and will be damned if they're going to start doing secretarial work."

One-on-one interviews tend to be most useful with senior managers and executives, who need the protection of anonymity. The technique is less useful with lower-level employees who might interpret the interview as a threat to their jobs.

2. *Small-group discussions.*—Focus groups, deep-sensing groups, even nominal (technique) groups can be used to get past the insecurity of individuals who are reluctant to discuss their attitudes toward computing one to one. Small interview groups also have the advantage of "idea building." One member of a group says, "I don't understand what all this floppy-disk stuff is about and I don't think I need to." Encouraged by that admission, another adds, "I know one when I see one, but what the heck does it mean to 'boot' one?"

Training by techies, for techies: and valuable people with non-techies learning styles are out of luck.

Small groups are very effective for first-line supervisors, line operators and the like. Some of the structuring techniques of the nominal group method can be helpful in organizing the information you gather.

3./4. *Surveying and testing*—Computer-literacy experts differ sharply over the value of surveys and tests in determining what trainees know and what they need to know. David O. Olsen, founder and president of Computer Workshops and Seminars, Inc. of Philadelphia, sees surveys as very useful, and considers them "helpful in determining the scope of user needs."

Edward B. Yarrish of Executive Technology Associates in Allentown, PA, has quite the opposite view. "The technology changes so quickly that survey results are meaningless," he asserts.

TRAINING tends to consider both knowledge and attitude surveys useful for answering "How much?" and "How many?" questions.

Karl Albrecht brings up an issue that points to a need for some specialized testing as well. "A thing that seems least considered in planning computer-literacy training is learning style," he says, adding that the result is a plethora of computer-literacy training designed by "techies" for techies and frequently taught by techies.

The problem with this, according to Albrecht, is that large numbers of people are accidentally being discriminated against when it comes to the availability of computer training. "Peo- ple who don't learn well the way the technophiles do are self-sele away from computer-literacy tra ing," he says. "This keeps quite a high-quality organizational tale away from computer training. seeing a two-class computing socie develop in some companies. No o zation can afford that situation f long."

TRAINING detects a ring of tru here. We suspect that organiza would do well to test for learning sty while they survey for attitudes interests.

Step 5. Recommendations to management

Your needs-assessment work is done until you recommend action inaction, as the case sometimes m be. Assuming you have decided th training is needed, you have a va of options to recommend to manag ment. Learning-style research a adult-learning theory suggest th classroom seminars, hands-on wor shops, multimedia-training techniqu and computer-based training *all* appropriate roles in the computer literacy milieu. But some speci sources are available as well.

Computer clubs and user g are very popular with microcompute hobbyists. The same vehicles c useful within an organization. Jo Hunter, a management develop specialist at Perpetual American Fe eral Savings in Alexandria, VA the computer club as extremely im portant to his company's comp literacy push. "We have a mandate to become computer literate here says. "The users' group is the only wa we can guarantee that help is able for everyone who needs it, whe they need it."

Also coming along fast is the co cept of the microcomputer infor tion center. Here, DP professiona and training types come together provide consulting, counseling a one-on-one tutoring as needed.

The mix you choose to present management should be well thou out, costed carefully and supp by the organization's data-process pros.

Making sure that your organiza becomes computer literate in the meaningful, effective and efficient possible will be the most per training challenge of the '80s and no question. Neither is there any tion that the ability to analyze ne effectively and prescribe training cisely will be crucial to your succes that effort.

WASTED BEHAVIOR: A CONFESSION

In which the father of front-end analysis examines the results of a lifelong quest

BY JOE HARLESS

For much of my professional youth and some of my middle age, I spent countless hours interviewing subject-matter experts in connection with front-end analyses. I now confess that much of that effort was wasted.

I was asking the wrong questions.

For the uninitiated, front-end analysis is a procedure I described in 1969 in a book called *An Ounce of Analysis (Is Worth a Pound of Objectives).* It allows you to diagnose the causes of a human performance deficiency. If the analysis convinces you that a performance problem is being caused by a lack of skills or knowledge (in other words, it is, indeed, a problem for which training is the solution), then you've got another decision to make: What should your training be designed to teach?

In my early years I set about determining what to teach based on the question, "What do you want them to *know?"* The problem with asking subject-matter experts (SMEs) that question was that they'd tell me. The problem with their telling me was that they'd tell me everything they knew. The problem with teaching trainees everything the SMEs knew was that companies don't want to send people to courses that last for years.

Starting with the question of what trainees should know created other problems, too. It guaranteed that the training we designed would wind up focusing, as an academic course does, on some relatively broad content area; subject-matter-based training, as we all know, is unpredictable in terms of imparting skills that will transfer to the job. Our approach also implied that trainees would commit information to memory. As a result, we failed to consider job aids, which are cheaper and often more effective than trying to store information in the trainee's long-term memory.

Once I realized my folly, I began encouraging my fellow trainers to kick the costly and dangerous habit of asking what people ought to know. (I haven't been very successful, although it is popular these days to *say* you do performance-based training.) I tapped my behaviorism roots and began to insist that SMEs answer the question, "What do you want them to *do* on the job?" In other words, what behaviors should graduates exhibit after we train them?

In those days, I was a fundamentalist. I wouldn't allow the verb "do" to apply to any cognitive behavior at all. I knocked off that silliness when I grasped that strict behaviorism excluded important aspects of a job, such as making discriminations, generalizing rules to cover various situations encountered on the job and so on. I decided it was OK to describe thinking if you regarded it as covert behavior, not subject matter.

I figured I had found the solution. I was no longer wasting my effort and my clients' money by dissecting subject matter, breaking down topics such as basic electronics into smaller and smaller increments under the gui doing analysis. I thought that an ing behavior (job-task analysis) v smarter thing to do.

I was wrong. Analyzing beha doesn't work much better than lyzing subject matter, and it t even longer to do. Tom Gilbert author of *Human Competence,* a once spent months analyzing be ior for a training project for the C for Disease Control. Our analysi sulted in replacing a two-week co for epidemiologists with a two- training module. The trouble was module taught U.S. epidemiolo how to diagnose a disease that been virtually eradicated in United States. In other words, th havior we were teaching had no v able application to the trainees o organization. Thus, the cost was tremely high, and the value proached zero. Of course, we got chance to demonstrate how smar were to have figured out these deta behaviors and to develop what m still regard as the best example of grammed instruction in history.

In retrospect, that project and ers show that a pound of analys worth an ounce of accomplishme

When I reviewed my consul projects over the last 20 years, I fo that nearly 40 percent of total pro time was spent in job-task analys that is, describing behavior in a trary units of major duties, ta steps, elements, operants and all t No wonder clients often accused u taking too long.

I've learned to mistrust self-rep ing of behavior, especially covert havior. SMEs often tell us they do sorts of things that have little basi reality. When we test the findings task analysis by watching people p form the task in a real job situati we nearly always discover that SM have reported two to three times volume of behavior they actually hibit on the job. (In other words, t don't really do half the things they us they do.) In interviews, they se inordinately fond of dwelling on ra esoteric behavior. They delight in rifying me with the volume of ta they know how to perform. I forg them for that. I probably do the sa thing when I teach courses in p formance technology. And, after a did ask them the question.

Tom Gilbert has been preaching years that what we should focus up

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For much of my professional youth and some of my middle age, I spent countless hours interviewing subject-matter experts in connection with front-end analyses. I now confess that much of that effort was wasted.

I was asking the wrong questions.

For the uninitiated, front-end analysis is a procedure I described in 1969 in a book called *An Ounce of Analysis (Is Worth a Pound of Objectives)*. It allows you to diagnose the causes of a human performance deficiency. If the analysis convinces you that a performance problem is being caused by a lack of skills or knowledge (in other words, it is, indeed, a problem for which training is the solution), then you've got another decision to make: What should your training be designed to teach?

In my early years I set about determining what to teach based on the question, "What do you want them to *know?*" The problem with asking subject-matter experts (SMEs) that question was that they'd tell me. The problem with their telling me was that they'd tell me everything they knew. The problem with teaching trainees everything the SMEs knew was that companies don't want to send people to courses that last for years.

Starting with the question of what trainees should know created other problems, too. It guaranteed that the training we designed would wind up focusing, as an academic course does, on some relatively broad content area; subject-matter-based training, as we all know, is unpredictable in terms of imparting skills that will transfer to the job. Our approach also implied that trainees would commit information to memory. As a result, we failed to consider job aids, which are cheaper and often more effective than trying to store information in the trainee's long-term memory.

Once I realized my folly, I began encouraging my fellow trainers to kick the costly and dangerous habit of asking what people ought to know. (I haven't been very successful, although it is popular these days to *say* you do performance-based training.) I tapped my behaviorism roots and began to insist that SMEs answer the question, "What do you want them to *do* on the job?" In other words, what behaviors should graduates exhibit after we train them?

In those days, I was a fundamentalist. I wouldn't allow the verb "do" to apply to any cognitive behavior at all. I knocked off that silliness when I grasped that strict behaviorism excluded important aspects of a job, such as making discriminations, generalizing rules to cover various situations encountered on the job and so on. I decided it was OK to describe thinking if you regarded it as covert behavior, not subject matter.

I figured I had found the solution. I was no longer wasting my effort and my clients' money by dissecting subject matter, breaking down topics such as basic electronics into smaller and smaller increments under the guise of doing analysis. I thought that analyzing behavior (job-task analysis) was a smarter thing to do.

I was wrong. Analyzing behavior doesn't work much better than analyzing subject matter, and it takes even longer to do. Tom Gilbert, the author of *Human Competence,* and I once spent months analyzing behavior for a training project for the Center for Disease Control. Our analysis resulted in replacing a two-week course for epidemiologists with a two-hour training module. The trouble was, the module taught U.S. epidemiologists how to diagnose a disease that had been virtually eradicated in the United States. In other words, the behavior we were teaching had no valuable application to the trainees or the organization. Thus, the cost was extremely high, and the value approached zero. Of course, we got the chance to demonstrate how smart we were to have figured out these detailed behaviors and to develop what many still regard as the best example of programmed instruction in history.

In retrospect, that project and others show that a pound of analysis is worth an ounce of accomplishment.

When I reviewed my consulting projects over the last 20 years, I found that nearly 40 percent of total project time was spent in job-task analysis—that is, describing behavior in arbitrary units of major duties, tasks, steps, elements, operants and all that. No wonder clients often accused us of taking too long.

I've learned to mistrust self-reporting of behavior, especially covert behavior. SMEs often tell us they do all sorts of things that have little basis in reality. When we test the findings of a task analysis by watching people perform the task in a real job situation, we nearly always discover that SMEs have reported two to three times the volume of behavior they actually exhibit on the job. (In other words, they don't really do half the things they tell us they do.) In interviews, they seem inordinately fond of dwelling on rare, esoteric behavior. They delight in terrifying me with the volume of tasks they know how to perform. I forgive them for that. I probably do the same thing when I teach courses in performance technology. And, after all, I did ask them the question.

Tom Gilbert has been preaching for years that what we should focus upon and value is workers' accomplishments, not their knowledge or behavior. I've come to agree.

Forced to choose, whom do you want to pilot your plane?

- Pilot candidate #1: I know the principles of aerodynamics.
- Pilot candidate #2: They taught me the steps of flying.
- Pilot candidate #3: I have accomplished many safe takeoffs, flights and landings.

If you've stopped breathing, whom do you want to show up?

- Paramedic #1: I know how a resuscitator works.
- Paramedic #2: I know how to work a resuscitator.
- Paramedic #3: I have accomplished resuscitation before.

We've found that companies do, in fact, ultimately value accomplishments and typically have little difficulty specifying those accomplishments if we ask them.

We no longer talk to SMEs much when we set out to design a training course. Now we ask the client to provide an accomplished performer whom we can observe and question. We want to use a person who has produced the valued accomplishments before as the model for what to train for or to cover in a job aid.

Most truly accomplished performers are eager to show us what they do and tell us what they think in order to produce valuable results. Of course, we never ask accomplished performers what they "know."

All this has changed the way we do front-end analysis. We no longer begin by asking questions about knowledge or behavior. Instead, our questions follow this progression:

1. What basic accomplishments does the organization desire?
2. Does the current situation (e.g., a performance problem or anticipated training need) involve a change or addition to the accomplishments, or a present deficit?
3. What job or specialty is most directly involved?
4. What specific accomplishment of the job is most directly involved?
5. What is the deficient accomplishment costing the organization? Is the cost high enough to justify solving the problem?
6. Why is the accomplishment deficient?
7. What key behaviors (overt and covert) does an accomplished performer exhibit in order to produce the accomplishment?

Since we've begun to perform this accomplishment-based front-end analysis and, subsequently, accomplishment-based training design, here's what has happened:

- Routinely, the time required for front-end analysis has been cut in half. In one case, we came in behind someone else who had spent a year doing an abortive, traditional, behavior-based front-end analysis. We did an accomplishment-based front-end analysis in three weeks.
- Clients find it easier to specify criteria for good performance. In our classic job-task analysis approach, clients always had trouble setting standards for behavior.
- Clients agree more quickly on desired accomplishments than they ever did about what people were supposed to know or do in order to perform their jobs correctly.
- Deciding whether to store information in trainees' memories or in job aids is easier because an accomplishment-based approach groups job tasks by outputs rather than by competencies or some other generic category.
- An accomplishment-based analysis produces leaner training content than either knowledge-based or behavior-based approaches. That's because it reduces the temptation to include nice-to-know and low-probability behaviors. The results are shorter courses that don't shortchange effectiveness.
- The training design is more sensible because any behaviors taught or covered by a job aid are organized the way they would be exhibited on the job. Organizing training courses and modules by trying to sequence objectives or topics is not the best way to design training. Trainees don't encounter topics or principles on the job; they encounter signals that alert them to produce accomplishments.
- Clients find evaluation of accomplishment-based training more meaningful. We no longer have to ask, "What do trainees know at the end of the course?" or "What can they do as a result of the training?" Now we can ask a more valuable question: "What can they produce?"

Our educational roots bias us toward focusing on knowledge—rather than job performance—as the aim of training. Our behavioral grounding helped us break free of that conditioning. Now I, for one, am trying to grow out of strict behaviorism, too.

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FLOW-PROCESS CHARTS: HOW THEY HELP DETERMINE EMPLOYEE TRAINING NEEDS

Here are step-by-step instructions on how the flow-process chart will make the supervisor's job more effective

BY CHARLES T. UTT

Though a multitude of methods are used to determine training needs, those who work in manufacturing environments have tended to focus on three approaches: organizational analysis, manpower analysis and job description analysis.

However, there is a fourth useful category for training assessment: operational analysis. An important tool of operational analysis is the flow-process chart, an analytical technique used by industrial and management engineers. Many line supervisors use the flow-process chart to improve operations in their areas independent of staff specialists.

This same flow-process chart technique can be used by training specialists to separate methods improvement and operations improvement needs from employee training needs.

There are three basic steps to the process:

1. Break the work flow or process into basic segments or steps.
2. Analyze each basic segment step-by-step through the work-flow process.
3. Try to determine a better method by using: a) methods that are known to be quicker or less time-consuming; b) equipment, jigs, templates and devices that can make the process faster; c) training programs, on-the-job training techniques, instructions, aids, manuals, visual devices and coaching that can improve employee skills.

Obviously you have to understand the process you're analyzing. It's usually most appropriate for trainers to enlist the help of departmental supervisors or other process experts, such as quality control personnel, to develop a flow-process chart

When the flowchart i all the operations are sum chart form. Figure 1 is the chart made from doing a flo study of a mythical "widge tion line. The study covers duction of 1,000 widgets a hour time period. In additio and pieces, the analysts h sured the distance the prod a single widget covers (in 400 feet).

Once this baseline data ered, the analysts can begin lenge it and propose chang are six factors or question challenge:

1. Does each operation ac what it is supposed to do?
2. Why is this operation it necessary? Can the same accomplished without the op
3. At what location or are operation done? Is it necess it there? Can the operation proved by changing the lo the operation or changing tion of the employee work
4. At what time is this done? Can the operation to another time? Can the be changed?
5. How is the operation d

Figure 1
Flow Process Summary Chart of 1,000 Widgets

		Present	
		No.	Time
●	Operations	10	20.5 hours
➡	Transports	5	5.0 hours
■	Inspections	2	3.0 hours
◗	Delays	2	8.0 hours
▼	Storages	1	-0-
	Distance Traveled	400 feet	

Figure 2
Flow Process Improvement Chart for 1,000 Widget Bas

		Present		Proposed		Sa	
		No.	Time	No.	Time	No.	
●	Operations	10	20.5 hours	8	18.5 hours	2	2.
➡	Transports	5	5.0 hours	4	4.5 hours	1	0.
■	Inspections	2	3.0 hours	2	3.0 hours	0	0
◗	Delays	2	8.0 hours	1	7.5 hours	1	0.
▼	Storages	1	-0-	1	-0-	0	
	Distance Traveled	400 feet		350 feet		50	

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■	Inspections	2	3.0 hours
D	Delays	2	8.0 hours
▼	Storages	1	-0-
	Distance Traveled	400 feet	

Figure 2
Flow Process Improvement Chart for 1,000 Widget Base

		Present		Proposed		Saving	
		No.	Time	No.	Time	No.	Time
●	Operations	10	20.5 hours	8	18.5 hours	2	2.0 hours
➡	Transports	5	5.0 hours	4	4.5 hours	1	0.5 hours
■	Inspections	2	3.0 hours	2	3.0 hours	0	0 hours
D	Delays	2	8.0 hours	1	7.5 hours	1	0.5 hours
▼	Storages	1	-0-	1	-0-	0	-0-
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Obviously you have to understand the process you're analyzing. It's usually most appropriate for trainers to enlist the help of departmental supervisors or other process experts, such as quality control personnel, to develop a flow-process chart.

When the flowchart is completed, all the operations are summarized in chart form. Figure 1 is the summary chart made from doing a flow-process study of a mythical "widget" production line. The study covers the production of 1,000 widgets and a 36.5-hour time period. In addition to time and pieces, the analysts have measured the distance the production of a single widget covers (in this case 400 feet).

Once this baseline data is gathered, the analysts can begin to challenge it and propose changes. There are six factors or questions to the challenge:

1. Does each operation accomplish what it is supposed to do?
2. Why is this operation done? Is it necessary? Can the same result be accomplished without the operation?
3. At what location or area is this operation done? Is it necessary to do it there? Can the operation be improved by changing the location of the operation or changing the location of the employee working on it?
4. At what time is this operation done? Can the operation be changed to another time? Can the sequence be changed?
5. How is the operation done? Is it

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Distance Traveled		400 feet		350 feet		50 feet	

possible to do it better? Can a different method or layout be used? Is there a better piece of equipment or machine that can be used to improve the operation?

6. Which employee does this operation? Why does this employee do this operation? Is the employee doing the operation the right employee to do it? Would the operation be improved if another employee did the operation?

These challenge questions are traditional in the improvement process. However, this is the time when the trainer on the team would assess employee skill deficiencies or knowledge deficiencies that are detrimental to operations improvement. In essence, the trainer on the team adds a *seventh* type of question to the challenge process:

7. Is the employee performing this function maximally equipped to do it? Does he or she have adequate feedback? Is the operation in some way punishing? Does the employee do the task by the book? Would a job aid decrease errors? Has the employee been trained in all the steps of the operation? Are some employees much better than others at the operation?

Present vs. proposed

Once the challenging process has been completed on all activities, compare proposed changes with the process in Figure 1.

In Figure 2 we can see that two operations have been eliminated for a total savings of two hours. One transport has also been eliminated for a savings of one-half hour and 50 feet of traveling. One delay has been removed with a savings of one-half hour. To process 1,000 pieces there has been a savings of three hours and a travel distance of 50 feet.

Training possibilities

The supervisor and the training analyst also noticed that two out of the remaining eight operations were being done improperly and ineffectively. They believe that an additional savings of one-quarter hour would be realized if they initiated training.

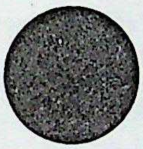
They also noticed that three of the remaining transports can be improved by the use of checklists and a visual aid. No training is required, but only training aids.

When the inspections that remained were observed closely, it was determined that an improvement in the process could be increased by coaching the inspectors. All inspectors had previous training, but poor work habits, from low rates of feedback. Only coaching is necessary to save another one-quarter hour of the remaining inspections.

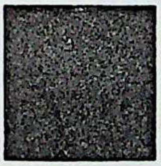
Analyzing work flow for improvement is an opportune way to review the skills and knowledge of each employee, with an eye on training needs. Not all deficiencies in employee skill and knowledge may be corrected by a training program. In many cases visual aids, drawings, procedures, checklists or merely watching each employee and giving feedback will bring improvement. But it all begins when you take the time to perform a careful flow-process analysis.

Reprinted from TRAINING, January 1982

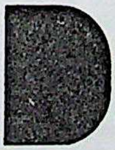
FIVE BASIC SYMBOLS



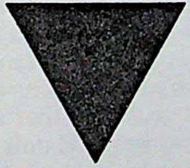
This symbol indicates an *operation*. It is used to indicate changes central to material or object. The change can be a process of adding or deleting from the object or assembling or disassembling the object. In nonmanufacturing environments the symbol for *operation* may also indicate a person writing, calculating, planning, drawing, telephoning, receiving, sending or typing information.



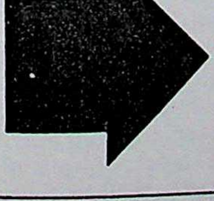
This symbol is used for *inspection*. When objects are measured, weighed, reviewed, checked or verified for quality, quantity and specifications, an inspection symbol is used.



This symbol for *delay* is used to indicate idle time. Equipment or machinery waiting for material or supplies is considered a *delay*. An employee waiting for a machine to complete a cycle also is considered a *delay* for the employee. Likewise, an employee waiting for materials, supplies or tools is considered a *delay*.



This symbol indicates a *storage* operation. *Storage* is a delay that is longer than 24 hours. It is usually storage of an object waiting an operation at a later date.



This symbol indicates *transportation* or *movement*. It is used when an object is moved from one place to another, or when a person moves from one place to another.

FIGURING OUT WHAT PEOPLE NEED TO LEARN

Part of the trainer's job description should include the word 'investigator'

BY RON ZEMKE

Task analysis is a classic Alice-in-Wonderland word; it means neither more nor less than the person using it wants it to mean. Steve Becker defines task analysis as "breaking a job down into tasks and into a list of elements for the purpose of describing the skill component of a competency." That's fine for starters, but let's make absolutely sure we are talking about the exact same thing.

We are *not* talking about the process of sending a survey to all the first-line supervisors of Universal Widget and asking them to check, circle or write down all the general-skill or competency areas they, their subordinates or superiors seem to lack. That's needs analysis. Nor are we talking about studying the reinforcers, punishers and organizational obstacles which may be inhibiting the successful repair of a typewriter or computer or whatever. That's behavior analysis. Task analysis is what you and I do when we have faithfully followed all the routes in Robert Mager and Peter Pipe's performance-analysis flow chart and are 99.9% sure that we are stuck with a situation that represents a *bona fide* training problem.

Surprisingly, when it comes to doing an actual task analysis, most of us have a limited vocabulary of techniques. Generally, we fly by the seat of our pants when we try to figure out what people need to know and do to perform their jobs successfully. But we're not alone. Many experts and instructional technology gurus agree with R. B. Miller, who declares that "Task analysis is an art, and as an art is largely dependent for its excellence and utility on the expertise of the task analyst." While that view is a pervasive and persuasive one, it hardly encourages experimentation.

In opposition to the Miller view, Instructional Psychologists Glaser and Resnick see task analysis as a science and, therefore, a growth stock. "Task analysis is the description of tasks in terms of the demands they place on such basic psychological processes as attention, perception and linguistic processing," they declare.

Whether task analysis should be characterized as an art or a science is probably irrelevant to us as practitioners. What *is* relevant is that we learn as many ways to describe tasks and list elements as we can. In that regard, our poking about and asking "How do *you* do task analysis?" has unearthed no fewer than 10 distinct approaches to task analysis. Five of the most interesting are summarized here.

Look-and-see approach

The first and most commonly practiced task-analysis technique is the look-and-see approach. Look and see is a spin-off from the time-and-motion study techniques invented by Frederick Taylor and other advocates of the scientific-management school so popular in the early 1900s.

In its simplest form, look and see is just that—simple observation. The trainer/analyst watches a subject-matter expert—someone who does the job well—and writes down what the SME does. The analyst looks for connections between what is done and what is produced and is especially alert to sequencing—i.e., "Let's see now, which goes on first? The link-washer retaining collar or the spring-assembly compression butt?" After watching the job cycle until every move is pretty predictable, the analyst begins asking questions like: "Why do you do A before B?" and "How did you know that was wrong just then?" The output is usually a prose description of the optimum sequence of events for doing the job and a list of things to do when exceptions arise.

One sophisticated form of look-and-see task analysis is taught and practiced by Dr. William Deterline, Deterline Associates, Palo Alto, CA. Deterline defines task analysis as the "specification of all overt and covert behavior involved in the performance of a job." The analyst's job is to develop a Behavioral Blueprint which consists of three elements; a Stimuli-Responses (S-R) Table, Behavioral Objectives and Criterion Test Items. The development of the S-R Table involves six steps:

1. Record observable behavior of incumbents.
2. Determine the *stimuli* (cues, signals) for the observed behaviors or *responses* (including responses to stimuli which are stimuli for subsequent responses).
3. Classify the S-R elements as: VP—verbal performance; VB—verbal behavior; MP—motor performance; D—discrimination
4. Classify discriminations as *one-way or multiple.* Example: Suppose the task is to pick out a picture of the dinosaur Triceratops when shown pictures of a Triceratops, a Stegosaurus and an Allosaurus. In that case, the task is a single *discrimination.*

If, however, the task is to call picture X a Triceratops, picture Y a Stegosaurus, and picture Z an Allosaurus, then the task is multiple discrimination. This classification makes a difference when one begins designing training.

5. Classify all S-R units as one-way or two-way. If the task is to say Triceratops to picture X, it's a one-way S-R unit. If the task is to say Triceratops to picture X *and* to pick up picture X when the task is to "find the Triceratops," it's a two-way S-R unit.
6. Determine relevent verbal mediators. Example: If ROY G. BIV is a commonly used mnemonic for remembering electrical resistor color coding, it is a relevant verbal mediator. Write it down.

The look-and-see task analysis approach is especially useful in simple motor-skill areas. Such tasks as small-machine repair, prepping scuba-diving equipment, and assembling small parts have been effectively analyzed by the look-and-see approach. It is also useful in situations where simple and moderately complex motor skills comprise the largest part of the job to be learned.

Structure-of-knowledge approach

The second approach, structure of knowledge, is the creation of Military Psychologist Robert Gagne and is based on training research work he and others did during the mid and late 1950s.

In a 1961 paper Gagne presented when he was elected president of the Military Division of the American Psychological Association, he suggested that one should not look to well-known learning principles when developing effective training. "I should look instead to the technique of task analysis," he said, "and the principles of component task achievement, and the sequencing of subtask learning to find those ideas of greatest usefulness."

Later, in his book, *The Conditions of Learning,* Gagne clarifies this approach. To Gagne, the analyst is most concerned with determining "type of learning" that each task would require. This knowledge is useful since the subtasks of the criterion performance must be a given learning type and can be easily identified and separated out.

Suppose Task K, replacing a flat tire, is a chaining task, i.e., there is a sequence of tasks to perform to remove the flat tire and replace it with a non-flat tire. In Gagne's hierarchy of learning types, chains are composed of *stimulus-response learning elements* which in turn are composed of *signal learning tasks.* For example, I must learn that when a tire is flat, the *stimulus* 'lug nut on bolt' is a cue for the *response* 'remove lug nut."

In *The Conditions of Learning,* Gagne specifies eight types of learning, listed here in decreasing complexity:

1. problem solving
2. rule learning
3. concept learning
4. discrimination learning
5. verbal association
6. chaining
7. stimulus-response learning
8. signal learning.

The idea is that all higher-order tasks are composed of lower-order elements. Learn the lower-order elements, and you have mastered the higher-order task. For me to fully understand the significance of the verbal mediator concept, "the red strawberries are ripe," I must already have, or acquire, a lot of discriminating verbal associations, chains, S-R units and signals. Determining both the *structure* and the subelement structure of the thing to be learned is where the analyst should focus his or her attention, according to Gagne.

The structure-of-knowledge approach is useful in analyzing fairly academic and theoretical subjects, such as math, physics, engineering and computer repair. Anywhere there's a large body of theory and a complex application situation, the structure-of-knowledge approach can be a real expedient.

Critical-incident approach

The critical-incident approach is another military training invention. The inventor, John C. Flanagan, also a military psychologist, was faced with the problem of improving military flight training. Specifically, too many trainees were cracking up the training planes, and someone somewhere in the War Department suggested that perhaps the training wasn't emphasizing the right things. The key word here is emphasis.

Flanagan, who later founded the American Institute of Research, did something deceptively simple. He asked those pilot trainees (who were able to walk away) to describe—in terms of behavior—what exactly they had done incorrectly. That technique of illiciting "war stories" is basically what the critical-incident approach amounts to.

There are, of course, some parameters on the acceptability of those war stories. Critical incidents are facts, not generalizations or opinions. They're about performance which can be pinpointed as either effective or ineffective. Critical incidents need not be major events. However, they're not usually just routine steps a trainee generally does correctly by habit. Consider, as examples, two incidents from a nursing training program Flanagan worked on in the late 1950s.

Effective Incident: A student nurse catches an error on a medication card when she double checked the patient's name.

Ineffective Incident: A student nurse fails to chart consistent elevation of a patient's temperature when the doctor's decision to operate rested on the patient's temperature at 8:00 AM that day.

After the analyst collects many such incidents, a panel of experts sorts them into groups or factors. The first nursing example—the student catching the medication error—was sorted into a pile of similar incidents which were eventually labeled *Checking.* The second example was sorted into a pile of similar incidents which were eventually called *Observing, Reporting and Charting.*

In a sense, the critical-incident technique is an application to training of Alfredo Paredo's Law of Disproportionate Distribution. Italian Mathematician Paredo originally discovered that 80% of the wealth of Italy was controlled by 20% of the population. The principle has shown to be true in other situations. Twenty percent of a company's salespeople make 80% of the sales; 20% of the sales generate 80% of the profits; and 20% of the effort yields 80% of the output. The critical-incident technique tries to point out what that critical 20% of effort, which yields 80% of the performance, looks like.

Dr. Marvin Dunnette has used the critical-incident approach to develop highly sophisticated and reliable performance-review instruments. He has developed a technique for gathering incidents and developing performance-measurement scales which is fairly simple and most effective in sorting out the 80s and 20s of such large and nebulous jobs as "managing" and "selling." There are roughly six steps to the process:

1. Gather two groups of SMEs;
2. Have them describe specific job incidents and the results produced;
3. Have them analyze these into like factors and name the factors;
4. Have them rank the incidents as good or bad along a seven-point scale;
5. Have them fill gaps in the scales with additional incidents;
6. Have them reconcile differences between the two groups.

Dunnette and others have applied the technique to jobs ranging from grocery check-out clerk to navy recruiting officer.

Table A: Task—Man Sharpening Pencil

	S		R	Class
a.	Pencil point broken	a.	Walks about looking for pencil sharpener	D/MP
b.	Arrives at pencil sharpener	b.	Inserts pencil in sharpener and turns handle	MP
c.	Turns handle until tension or drag on pencil decreases; sound changes	c.	Removes pencil; blows on point	D/MP

Process/decision flow chart approach

The process/decision flow chart technique is borrowed directly from the computer sciences. When programming a computer, the task is to break decisions into questions which have simple yes/no answers followed or preceded by equally simple operations. As a training tool, the process/decision flow chart has been honed and perfected by Ivor K. Davies and Ivan S. Horabin under the moniker "algorithm."

The term algorithm, from mathematics, refers to a simple sequence of instructions arranged in logical order and linked by simple-to-answer yes/no questions.

As an analysis technique, the exercise of forcing large, complex and conditional behavioral repertoires into simple instructions and yes/no questions can bring order to apparent chaos. Analysts armed with the algorithm mentality have attacked such seemingly complex and procedure-bound jobs as medical diagnosis, computer repair and the filing of one's income tax.

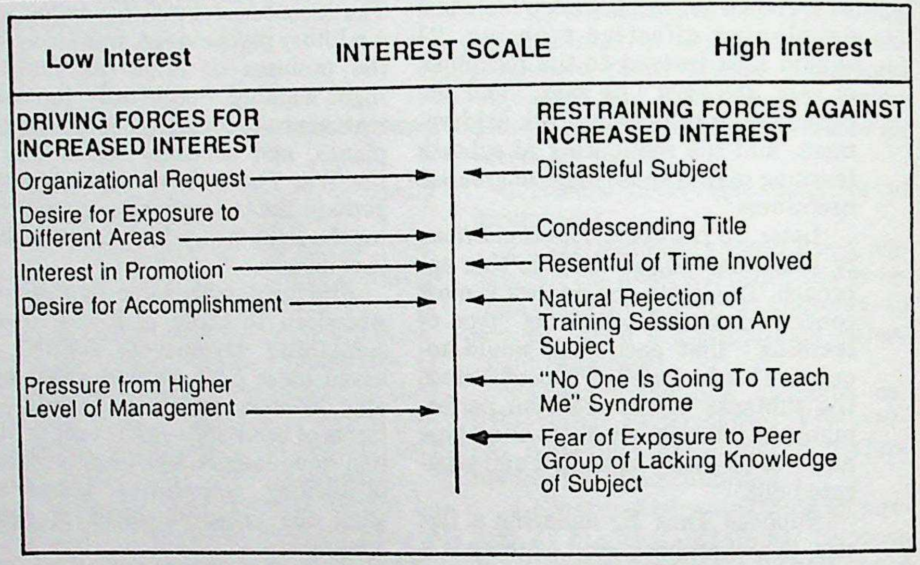
The procedure for developing the algorithm is a fairly straightforward one sometimes referred to as protocol development. The analyst simply has the SME give a running commentary on what he or she is doing and thinking while performing the task. After a number of these are obtained, an acceptable compromise protocol is developed. One group we know uses the tape recorder extensively. SME's are encouraged to chat with the

FORCE-FIELD ANALYSIS

BY CHARLES UTT

Most trainers are familiar with some form of front-end analysis—determining training needs and requirement *before* a training program is developed and implemented—and *rear-end* analysis—determining the effectiveness of a training program *after* its completion.

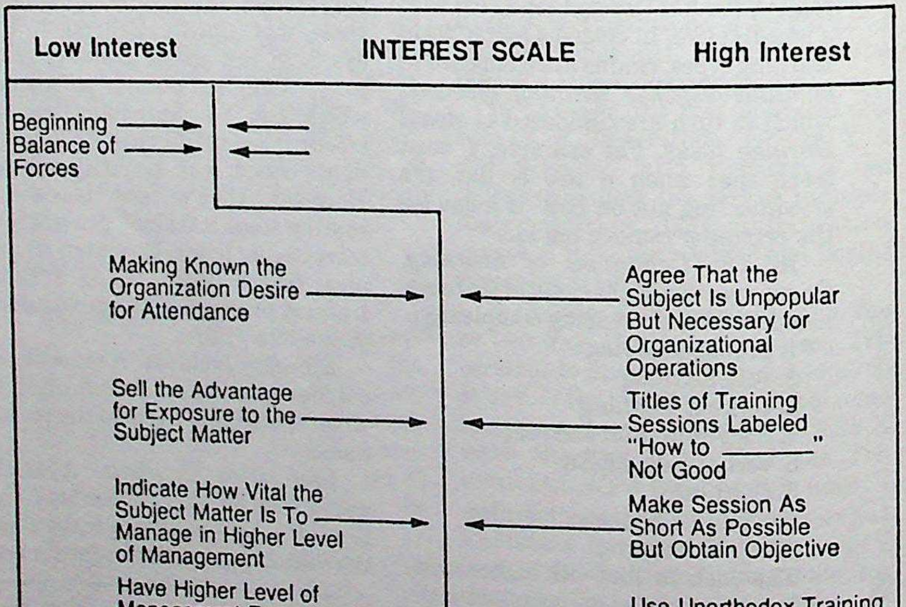
Somewhere between front-end and rear-end analysis is another method called force field analysis—analyzing the forces "for" and "against" a change in behavior of an individual or a group.


Low Interest
INTEREST SCALE
High Interest
DRIVING FORCES FOR INCREASED INTEREST
Organizational Request
Desire for Exposure to Different Areas
Interest in Promotion
Desire for Accomplishment
Pressure from Higher Level of Management
RESTRAINING FORCES AGAINST INCREASED INTEREST
Distasteful Subject
Condescending Title
Resentful of Time Involved
Natural Rejection of Training Session on Any Subject
"No One Is Going To Teach Me" Syndrome
Fear of Exposure to Peer Group of Lacking Knowledge of Subject

Consider, for example, a group of busy department heads whose objective is to increase training interest in a program that is unpopular, but still necessary and required. The forces for and against this program were diagrammed by the training director at the start of the program before an effort was made to improve the interest.

Rather than asking "What can we do to raise the level of interest," we can change the question to "What keeps the interest rate as high as it is? What keeps it from going higher?" as we analyze the interest rate as a *balance* of forces. Now it becomes evident that the interest rate can be raised either by increasing the driving forces at the left of the interest scale or by reducing the restraining forces to the right of the interest scale.

Here's how the training director can try to change these forces in order to increase the rate of interest.


Low Interest
INTEREST SCALE
High Interest
Beginning Balance of Forces
Making Known the Organization Desire for Attendance
Sell the Advantage for Exposure to the Subject Matter
Indicate How Vital the Subject Matter Is To Manage in Higher Level of Management
Have Higher Level of Management Express Desire for Employee To Attend
Agree That the Subject Is Unpopular But Necessary for Organizational Operations
Titles of Training Sessions Labeled "How to ______" Not Good
Make Session As Short As Possible But Obtain Objective
Use Unorthodox Training Methods, Not Classroom, But Meeting or Conference Room.
Tell Attendees That They Are There To Discuss Subject Matter and Ask for Recommendations for Implementing Training Subject
If Tests Are Used, Grades Are Not Published

The use of this force field analysis technique in training does not guarantee success. Like any other management tool, it assists in planning and building a better training program. But it *can* give some insights to the positive and negative forces which are constantly at work to either help or hinder training programs.

Reprinted from TRAINING, December 1977

analyst as one would with a student. "Here's what I'm doing. At this point I could do A, B or C. I'm going to do B; here's why . . ."

Two medical educators, Drs. John E. Rhetts and James H. Moller, used the process/decision flow chart method of task analysis to structure the procedures and decisions a general practitioner needs to diagnose pediatric heart diseases. The flow chart would fill the entire page if we let it, so we've included only a part of it in Chart B.

Chart B: Example of an Algorithm

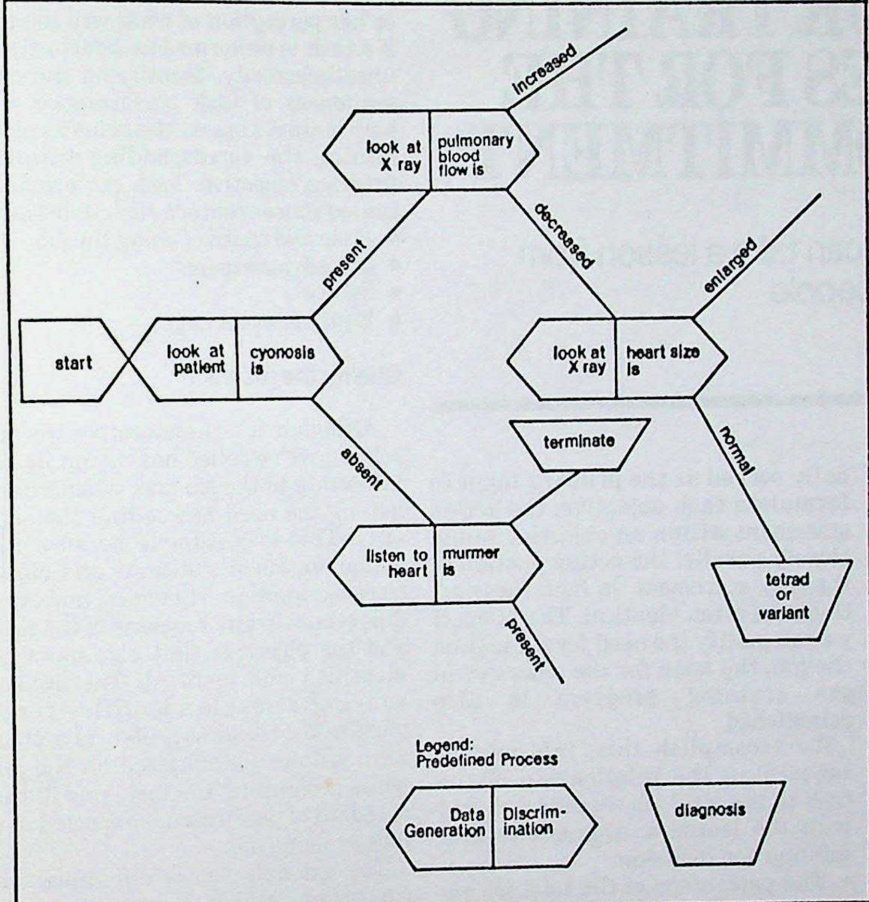
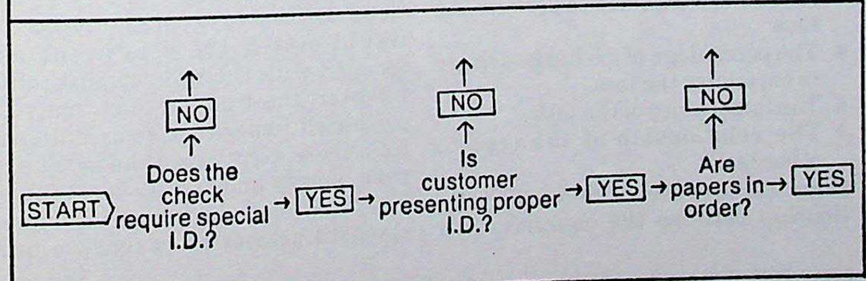


Chart C: Process/Decision Flow Chart


START
Does the check require special I.D.?
NO
YES
Is customer presenting proper I.D.?
NO
YES
Are papers in order?
NO
YES

The process/decision flow chart approach is also useful in organizing jobs composed of decisional tasks less critical than pediatric cardiology. Take the problem illustrated in Chart C of sifting through the myriad rules, discriminations and decisions a bank teller must master to perform the "simple" task of cashing a check. By forcing the information through such questions as "What usually happens first?," "How do you decide what to do next?" and "How did you do that?," an algorithm for check cashing pops out.

One trainer we know made a job aide of the process/decision flow charts he designed for repairing the 100 most common faults of a calculating machine. Training time was reduced by 45% and repeat repairs by 30%.

Consumer-research techniques

This last type of task analysis is really a whole class of research techniques. Market researchers and advertising people have developed a respected and substantial body of tools for finding out what people do and what they expect from people with whom they interact in the marketplace. Many of these techniques provide rich data for specifying both training outcomes and training content.

For example, we know a sales-training manager in a major West Coast bank who utilized the services of a market-research firm to perform part of a sales-training task analysis for calling officers. The researchers studied the buying habits and style of the clients the bank's calling officers worked with. In addition, the firm studied preferred sales behavior and preferred call frequency. Needless to say, this information became key to the sales-training director's search for a new program and in the development of a new call strategy.

One consumer-research technique a number of trainers are adapting is the *focus group.* The purpose of focus groups is to find out what consumers like and dislike about a specific product or service and why they buy certain products instead of others. All members of the group have had previous experience with the same product, service or problem, and an interviewer seeks responses related to various attributes of the experience.

The focus-group technique requires a good interviewer and a lot of planning. It is more expensive than a survey study. And analysis of results is a long and tedious job. But there are a number of benefits.

A topic can be fully explored and unusual ideas and suggestions often surface unexpectedly. Specific incidents and quotations useful for developing content arise. And a focus group can generate items for verification and use later in a more data-based approach. The focus group is especially useful to the trainer who works with people who have heavy customer-contact responsibilities.

To be continued

We have not, by any means, said the last word on task-analysis techniques. We've probably missed two or three of your favorite toys, and we haven't mentioned two or three of our own favorites.

But the point is clear: When we get to that box in the flow chart that says "do task analysis," there are a lot of possibilities. The trick is to apply the right technique to the right job. If we don't think through our choice of task-analysis approach, we can't figure out what our trainees need to know and do to perform optimally.

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SELLING YOUR TRAINING OBJECTIVES FOR THE PRICE OF COMMITMENT

On this score, trainers can take a lesson from salespeople

BY MAYNARD HEREM

Most trainers know how valuable objectives are to good training program design. Yet they may not realize how valuable objectives themselves are as learning tools within the classroom—particularly if they are "sold" to trainees the way a salesperson sells benefits to potential customers.

"It is not sufficient for learners to know what the objectives are or even to understand their meaning," claims Maynard Herem, assistant professor of management at the University of Wisconsin extension division. "Trainers must agree that attaining each objective will be worth the effort. One way to get that agreement is for the instructor to become a salesperson." To make the sale, says Herem, "the trainer must establish a need, sell the benefits, qualify the product and ask for commitment."

Here is how Herem describes the objective selling/buying process for trainers.

Very few people buy things they don't see a need for. An essential prerequisite to "buying" an objective is agreement that the activity it describes will indeed be performed on the job. Fortunately, the instructor has some powerful information available that makes the task of substantiating the need relatively easy. If job tasks were identified during the job/task analysis and originally served as the primary input to formulate each objective, the action statement within an objective would closely parallel the action portion of the task statement. In fact, these actions are often identical. Therefore, if we can justify the need for the task on the job, the need for the objective in the training program is also established.

To accomplish this, information concerning the relationship of the task to the total job should be shared with the learners. Appropriate task information includes:

- The percentage of the total job encompassed by the task
- The frequency with which job holders are expected to perform the task
- The percentage of job holders likely to encounter the task
- The importance of the task
- The relationship of the task to other tasks

Once learners are aware of the relationship between the objectives and the task and between the task and the total job, the need has been established.

Sell benefits

Selling the benefits of achieving objectives involves helping the trainee answer the question, "What's in it for me?" The trainee's on-the-job performance will be influenced by his or her perception of what will happen if a task is performed satisfactorily or unsatisfactorily. Identifying the consequences of task performance will help learners assess the benefits of attaining the corresponding training program objective. Task performance consequences concern such items as:

- Ease and speed of doing the job
- Job advancement
- Safety
- Equipment damage

Qualify the product

Although it's the objective we are selling, we've relied heavily on its relationship to the job task when establishing the need and selling the benefits. This is justifiable because the action statements of tasks and objectives are similar. There are, however, differences in other aspects of the task and the objective that also must be identified and justified. The accompanying example identifies three parts of a task description: 1) action, 2) conditions encountered on the job while performing the task, and 3) the standard of performance expected of a master performer.

The example shows differences in conditions and performance standards between the task and the training program objective. Ideally, conditions associated with the objective would match the conditions associated with the task. Realistically, however, the training often must be conducted under conditions different from those expected on the job due to time, money and facility constraints. The difference in the performance standard demonstrates that we usu-

	JOB TASK	TRAINING PROGRAM OBJECTIVE
ACTION	Remove Model 374 transformer	Remove Model 374 transformer
CONDITIONS	Given a Model 374 transformer mounted atop a 30-foot wood pole, standard climbing equipment, standard tool kit, and wiring diagrams. May encounter adverse conditions including: Heat, cold, rain sleet, snow, and/or gusting wind.	Given a Model 374 transformer mounted atop a 5-foot pole in the lab, standard tool kit, and wiring diagrams.
PERFORMANCE STANDARD	Within 30 minutes.	Within 45 minutes

ally accept a lower performance level during training and allow proficiency to develop on the job.

Qualifying the product, then, involves informing learners of the differences between the task and the associated objective and why those differences exist.

Ask for commitment

Once objectives and their relationships to job tasks are clear, it's time to seek agreement from the learners that attainment is a worthwhile endeavor. Asking for commitment may consist simply of asking trainees if they are ready to work toward the accomplishment of the objectives. Chances are, the answer will be a resounding "yes."

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SPEED LEARNING BY PRESENTING OBJECTIVES IN 'TEACHABLE' PARTS

Breaking down performance objectives into bite-size pieces eliminates frustration—both yours and your trainees'

BY LESLIE P. LIMON

Assume you are a trainer responsible for teaching a group of employees the basics of using flowcharts. You have just presented your trainees with a sample problem to flowchart, and, as you monitor the activity, you sense that most of them are bogging down. Some can't decide which cell shapes to use. Others have put all the operations in their graphic but have failed to include decision points. Suddenly it occurs to you that you hadn't even considered the possibility that the trainees might not understand the significance of diamond-shaped cells versus rectangular ones. Furthermore, you can see that you apparently hadn't emphasized strongly enough the need for decision points. Since the trainees' frustration level is already high, you'll have to do some agile back-pedaling in order to fill the gaps and restore their self-confidence.

Occurrences such as this one are not uncommon during the course of a training program. In fact, they are key factors in program failure. But, with proper planning, you can reduce their likelihood or even eliminate it. An important step is to realize that your performance objectives by themselves will not carry you through a training session. To be successful, a performance objective must be broken down into teachable components, individual behaviors that, when recombined, will produce the desired behavior.

The term *performance objective,* as used here, refers to the behavior required of a trainee by the end of a session. It represents the final destination of a learning sequence, and trainees should be allowed to work toward it logically and systematically. A planning process that includes the analysis of the objective's components will ensure that this is done, because it establishes checkpoints that ascertain whether or not the trainees have prior knowledge of the subject. It also prevents the trainees from progressing to Point B before they have mastered Point A.

How do you determine the teachable components of a performance objective? First, you should try to look at the skill or procedure to be mastered as though you, too, were learning it for the first time. This can be a difficult strategy to follow, expecially if the task is already second nature to you. To break down global concepts into smaller ones, remember that a procedure is a sequence of finite steps and must be treated accordingly. Keep in mind, too, that all learning should involve the same basic hierarchy: identification of a concept, understanding the concept, applying the concept, and using the concept to perform analytical tasks.* Let's use the flowcharting class as an example to see how the first three stages of this hierarchy apply.

Assume that the objective of this particular session is "Given a sample procedure or problem, the trainee will develop a flowchart illustrating the accomplishment of the procedure or the solution of the problem." This objective involves a concept— a flowchart— and a skill— "translating" prose into a graphic form. The flowchart itself can be broken down into its components: terminals, operation and decision cells, sequence arrows and connectors. The "translation" consists of analyzing the prose, determining the decisions that are to be made and their sequence, determining the operations that must be performed and their relationships to each decision, and formulating a way to set it all up in graphic form.

Now that the elements of flowcharts and flowcharting have been isolated, the next step is to map out the sequence of skills to be performed. These skills also will be expressed in behavioral terms. At the most basic level of simple identification, trainees should be able to articulate what a flowchart is and how it applies to their daily work needs. We can express this behavior as follows: "The trainee will define the term 'flowchart' and give examples of its application to daily tasks." Other verbs commonly used in formulating a teachable component at this level are *tell* or *state.*

The implementation of this step requires a minimum amount of time, as little as five minutes. Trainees might write a definition and examples on a slip of paper and then read some of their answers aloud for discussion. This activity not only sets the stage for the rest of the lesson but also gives trainees a chance to think about areas of their work that will require the skill. In addition, this activity would highlight any misconceptions trainees might have about flowcharting; thus, the trainer could deal with these at the outset of the session.

Also at the level of knowledge (identification), trainees must demonstrate that they can recognize specific components of a flowchart when they see them. The verbs *label, distinguish* and *select the appropriate*...describe ways trainees can indicate recognition. For example, we might say, "Given a flowchart containing only empty cells, label the cells 'operation,' 'decision' or 'terminal' according to their shapes."

The next teachable component requires trainees to demonstrate some understanding of the components' interrelationships. Trainees should be able to distinguish an appropriate operation or decision from an inappropriate one. To accomplish this, you'd say, "Given a procedure or problem and an incomplete flowchart illustrating it and given a choice of possible operations/decisions for each blank cell, select the appropriate operation/decision for each." If the trainee can do this, he or she understands the correspondence between the prose and the analytic design of the graphic. This doesn't mean, however, that the trainees are expected to generate this correspondence independently. They will accomplish that task in the next stage of the learning process—application of the concept.

The application component of a training session should receive the most emphasis, since it relates directly to the desired behavior of a trainee and thus facilitates transfer of the skill to the job. During this stage, trainees need essentially the same skills as those described in the performance objective. In describing how these skills are to be performed, you'll probably use the same verbs that appear in the performance objective itself; that is, if your performance objective calls for the trainees to write, the application stage will also consist of writing activities.

The important thing to remember is that application begins in a controlled environment. As the controls are gradually dropped, the trainee begins to exhibit the desired behavior independently. A requirement to write something, for example, might begin in the application phase as an activity to fill in something that is incomplete or to respond to specific questions.

In our flowcharting lesson, we would want to provide structured practice in the actual development of the graphic before asking a trainee to work it out independently. Here's a logical follow-up activity to the selection exercise in the previous stage: "Given a procedure or a problem and an incomplete flowchart derived from it, fill in the blank cells with appropriate operations or decisions." If the trainee can do this, it means that he or she can generate parts of a flowchart independently, as long as other parts have been filled in to provide guidelines. This activity can be repeated as often as necessary or until the trainee can accomplish it easily.

The culmination of this phase, of course, is the performance of the desired behavior itself; in this example, that means generating an entire flowchart from scratch, given a particular procedure or problem. Even this can be accomplished gradually, beginning as a controlled activity and ending as an independent one. You can present a problem to the group as a whole, giving trainees an opportunity to work out a flowchart together under your guidance. This gives you an excellent opportunity to see where students still have problems and enables you to correct any misconceptions they may have before they begin working on their own.

Earlier, I mentioned a fourth stage— analysis— as part of the learning hierarchy. This stage involves using learned skills and concepts to accomplish analytical tasks, such as synthesis, invention or evaluation. While it's often desirable for trainees to attain this level, it's not always crucial to the successful completion of a training session. Furthermore, the strategies required for implementing this stage are beyond the scope of this article.

In summary, you can easily break down performance objectives by isolating each concept to be mastered and each skill to be performed. The trainee deals with these skills and concepts on at least three different levels: knowledge or identification, understanding and application. At the level of identification, trainees are asked to state meanings or functions, define and give examples. At the level of understanding, trainees demonstrate recognition of the interrelationships of elements by distinguishing similarities and differences, by selecting appropriate alternatives from a list, and so on. Finally, at the level of application, trainees begin to perform the desired behavior on their own. In a skill-based environment, you should bring trainees through the level of application, since this is where learning is transferred from the classroom to the job.

As a course developer, you may feel that a lesson structured this way will be stilted and tedious. Keep in mind, however, that the skills you are training others to perform are as unfamiliar to your trainees as they are familiar to you. If you maintain a lively pace throughout the lesson, completing its early stages particularly quickly, you will challenge, rather than bore, your trainees. Because each phase in this learning process requires trainees to *do* something, to perform some activity that demonstrates mastery of the skill at that level, you'll create an environment where trainees are responsible for their own learning. And this sense of responsibility increases trainee motivation and heightens interest.

Finally, the step-by-step approach I've outlined here helps eliminate learner frustration by preventing situations in which learners confront tasks they aren't yet ready to accomplish. When you can say to your trainees, "Now that you've done X, you should be able to accomplish Y," you are programming their behavior by directing it toward success. As a result, your trainees will not only have a better grasp of their own progress but they'll also gain self-confidence.

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*Bloom, Benjamin S., ed. *Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook 1: Cognitive Domain.* New York: David McKay Company, 1956.

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WRITING OBJECTIVES WITH STYLE

To make sure students get the most out of individualized learning materials, provide clear, concise instructions

BY JESSE M. HEINES

Objectives have long been recognized as the backbone of individualized instructional materials. And we've all heard that these objectives should be stated in terms of overt, measurable student performances or behaviors.

But it is the measurable component of objectives that is the most difficult for instructional designers to write. If an editor takes a general objective (what Bob Mager would call a "goal") and works it into a behavioral mode, the instructional designer will often comment that the edited objective has lost the "depth" of his or her idea and no longer conveys "the true skill to be learned."

But there's another side to the coin. General objectives (Mager's "fuzzies") also do little to provide learning direction. In their course "Criterion-Referenced Instruction,"* Bob Mager and Peter Pipe introduce the concept of stating a "criterion" for each behavior so that instructors can recognize mastery performers — that is, "know one when we see one." This article deals with style in writing objectives and stating the criterion in the form of a sample test item. These test items can serve to clarify objectives and assure that they can be tested. In addition, sample test items illustrate the exact way students will be evaluated.

Over-behavioralism

Sometimes objectives are worded in such a way that the objective and sample test item would be exactly the same. In these cases, a sample test item is not required. Usually, however, it is better to make the objective more general to encompass a wider range of skills and then let the test item serve as an illustration of these skills. For example, here is an objective for which no sample test item is needed:

1. Match each function performed by the LQP8-E to the printed circuit board that accomplishes it.

A more generalized objective is:

2. Identify all the functions for each of the LQP8-E printed-circuit boards (PCBs) listed below.
   - Power Amp PCB
   - Print Wheel PCB
   - Servo PCB
   - Logic #1 PCB
   - Logic #2 PCB
   - Transducer PCB

The sample test item for this objective could be

3. Match each PCB to its functions.

Function	PCB
—decodes instructions	A. Power Amp
—outputs ready status	B. Print Wheel Amp
etc.	etc.

Objective 1. is an *over-behavioralized* objective. It focuses on a narrow, short-term behavior ("match") rather than a wider, more useful behavior ("identify functions"). Here's another objective that carries the over-behavioralization problem to the limit:

4. Correctly answer 8 out of 10 questions on the major VS-60 components, features and options.

"Answering questions" is not a real objective of any training course I've ever observed. This behavior is merely an indicator of more complex mental processes. The true objective is closer to:

5. Identify the functions and uses of the CRT display monitor, display processor unit and light pen in the VS-60 Graphics Display Subsystem. You must respond correctly to 8 out of 10 multiple-choice test items on these units to demonstrate mastery.

The second sentence states the objective's criterion. A sample test item for this objective might be:

6. The device that is used to select and manipulate displayed graphic information on the VS-60 is the

   A. central processing unit.
   B. CRT display monitor.
   C. display processor unit.
   D. light pen.

One more point about Objective 4. In most cases, it's not necessary to instruct students to do things "correctly," because it would be ridiculous for them to strive to do things "incorrectly." The term may make sense in Objective 4. because it's possible to answer ten questions and not get eight of them correct. It would not, however, add anything to Item 3. to instruct students to "correctly match each PCB to its functions."

Wordiness

Wordiness is another problem area in objective and test-item writing. I have three suggestions to make in this area.

The first suggestion concerns the phrase "the student will be able to." In general, this phrase should be avoided because it is simply verbiage. Rather, objectives should be written in the second person with the subject "you" understood. Here is an example:

7. Given a block diagram of an LQP8-E, the student will be able to label the interface signals without references.

A simpler statement is:

8. Given a block diagram of an LQP8-E, label the interface signals without references.

An exception to this style involves objectives that are too large or complex to be tested completely. In these cases, you want students to "be able to" do all the tasks listed, but they will be tested on only a "sample" of them. Here is an example:

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*Mager Associates, Inc., 151 University Ave., Suite 400, Palo Alto, CA 94301./1/1

9. Given an LQP8-E line printer, be able to remove and re-install the field replaceable units (FRUs). You will be asked to remove and re-install two of the FRUs listed below.
    - Power amp PCB
    - Carriage amp PCB
    - Carriage assembly
    - Shaft carriage
    - Hammer armature assembly
    - Magnetic pick-up
    - Rear carriage bearing
    - Ribbon lift assembly
    - Ribbon lift coil assembly
    - Bail arm (right/left)

Look at the criterion for this objective. It would be too time-consuming to test each student on all 10 of these FRUs. Also, it is probably safe to assume that if a student can replace two or three of these units (a "sample" of the skills), he or she can replace them all. By using a random sample of these FRUs as the test, each student would have to be sure that he or she could replace them all before asking for the test. To guarantee this completely, a different sample should be used for each student. The sample test item for Objective 9. might be:

10. Your instructor will pick two of the FRUs listed in the objective. Remove and re-install the designated parts.

The second suggestion problem concerns long lists of "givens" and starting all or most objectives with the word "given." The first can confuse the reader, while the second can bore him. Look at this objective:

11. Given all necessary tools, test equipment, diagnostics and documentation, perform all necessary adjustments on a functioning, but maladjusted, VS-60.

The "givens" in this objective make it difficult to read because they don't mean anything to the reader until he or she gets to the action, "perform all necessary adjustments." It would be better to break this objective into two sentences with the action stated first. This approach will also allow elimination of the word "given."

12. Perform all necessary adjustments on a functioning, but maladjusted, VS-60. You will be supplied with all necessary tools, test equipment, diagnostics and documentation.

Just as the preceding problems are usually caused by trying to crowd an entire objective into one sentence, you can also cause unnecessary confusion by trying to crowd too many goals into one objective. There is no reason w goal cannot give birth to two, thr even more objectives as long as th related. This strategy can often r objectives clearer and allow ideas more fully developed.

Finally, be careful that objec and sample test items don't get bo down with phrases such as "wit references" or "using the XYZ ual." This information can be "fac out" of objectives and placed in a dent Guide. That is, if most tests be "open book" and allow refere say so in the Student Guide: U otherwise noted, you may use an erences when taking a test excep other person. Thus, you need specify when references are *no* lowed.

Writing with style

A training organization canno pect every instructional designe write in the same style, but it strive to make its materials look form. Such uniformity, espec when standardized in a clear wr style, can assist students by maki easy to move from prerequisit higher-level courses. An unen bered style will assure that stu "get the message" and that objec provide clear learning direction.

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LET'S RESOLVE TO WRITE BETTER TRAINING OBJECTIVES!

BY ELLEN BALL

At this time of year, when people are vowing to quit smoking, lose weight and save more money, it's also appropriate to make one resolution that really *can* stick throughout the year. And that's resolution to write better objectives.

Here, then, is a lesson short enough to fit into a Christmas stocking. An objective's contents, like a present, must fit exactly the person to whom it's addressed. In other words, if you don't want to see your uncle in a purple tie, don't buy him one. Likewise, be sure an objective is important enough to be made part of your training package material. Once you've decided on its appropriateness, write down exactly what you want to see or hear when the person receives the training derived from your objective.

Let's take Uncle Harry's tie. If you bought it, presumably you'd love to see it on him. So, what does he have to do? Wear it, of course. But is there anything else? Well, unless you're specific that he wears *your* purple tie, he might grab another, so you must tell him you want to see that particular one on him. Now, there are a few other things to consider. You'v him what you want him to do, (a and what to do it with (given) have you told him you want h wear the tie in a certain fashio in a double knot, with one end s and behind the other and the edge just above the belt bu Criteria that specific can't possi misinterpreted.

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you want students to "be able to" do all the tasks listed, but they will be tested on only a "sample" of them. Here is an example:

9. Given an LQP8-E line printer, be able to remove and re-install the field replaceable units (FRUs). You will be asked to remove and re-install two of the FRUs listed below.
    - Power amp PCB
    - Carriage amp PCB
    - Carriage assembly
    - Shaft carriage
    - Hammer armature assembly
    - Magnetic pick-up
    - Rear carriage bearing
    - Ribbon lift assembly
    - Ribbon lift coil assembly
    - Bail arm (right/left)

Look at the criterion for this objective. It would be too time-consuming to test each student on all 10 of these FRUs. Also, it is probably safe to assume that if a student can replace two or three of these units (a "sample" of the skills), he or she can replace them all. By using a random sample of these FRUs as the test, each student would have to be sure that he or she could replace them all before asking for the test. To guarantee this completely, a different sample should be used for each student. The sample test item for Objective 9. might be:

10. Your instructor will pick two of the FRUs listed in the objective. Remove and re-install the designated parts.

The second suggestion problem concerns long lists of "givens" and starting all or most objectives with the word "given." The first can confuse the reader, while the second can bore him. Look at this objective:

11. Given all necessary tools, test equipment, diagnostics and documentation, perform all necessary adjustments on a functioning, but maladjusted, VS-60.

The "givens" in this objective make it difficult to read because they don't mean anything to the reader until he or she gets to the action, "perform all necessary adjustments." It would be better to break this objective into two sentences with the action stated first. This approach will also allow elimination of the word "given."

12. Perform all necessary adjustments on a functioning, but maladjusted, VS-60. You will be supplied with all necessary tools, test equipment, diagnostics and documentation.

Just as the preceding problems are usually caused by trying to crowd an entire objective into one sentence, you can also cause unnecessary confusion by trying to crowd too many goals into one objective. There is no reason why a goal cannot give birth to two, three or even more objectives as long as they're related. This strategy can often make objectives clearer and allow ideas to be more fully developed.

Finally, be careful that objectives and sample test items don't get bogged down with phrases such as "without references" or "using the XYZ manual." This information can be "factored out" of objectives and placed in a Student Guide. That is, if most tests will be "open book" and allow references, say so in the Student Guide: Unless otherwise noted, you may use any references when taking a test except another person. Thus, you need only specify when references are *not* allowed.

Writing with style

A training organization cannot expect every instructional designer to write in the same style, but it can strive to make its materials look uniform. Such uniformity, especially when standardized in a clear writing style, can assist students by making it easy to move from prerequisite to higher-level courses. An unencumbered style will assure that students "get the message" and that objectives provide clear learning direction.

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If you know exactly what it is you want when your objective is met, it's easy to sit down and fill in the blanks— what you want to see, what is needed to do it with and the condition under which you expect it to be done. Maybe the same bottom line of what you'd look like 10 pounds thinner would keep alive your yearly resolution to lose weight.

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I DON'T TEACH BEHAVIORAL OBJECTIVES ANYMORE

A confession—with a twist—from a former believer

BY MARTIN M. BROADWELL

If the title of this article seems like a "tickler" in the confession magazines, that is appropriate. What follows is a confession, so let dissenters and advocates stand back.

After reading painfully through Bloom's "Taxonomy" (a great, meaningful, but tiresome report) and Mager's "Preparing Instructional Objectives" (Bob always writes the books I wish to have written), I struck out to follow, and sometimes to lead, the pack clamoring for behavioral objectives. Perhaps I even influenced a few people to get on the wagon—a long, uphill trip, since so few folks believe. Others believe but just won't fight the mud and rocks—objections about time, money and "being foolish trying to get objectives on *all* these courses."

I'll never forget my shock, delivered in the early 1960s at one of the first Ann Arbor "Workshops for Programmers," when Geary Rummler quietly asked me, "What is it you want these engineers to *do* when they finish the program?" (The new breed of trainers doesn't experience this sensation, because someone hits them with Mager the first day to get the whole trauma started immediately.) Something was happening in the training world. It made sense. We all wondered why we hadn't asked the question before and went about trying to answer it. Then the fun began.

Impossible?

When it became difficult to write satisfactory objectives, believers started to drop by the wayside. When it became even harder to come up with good criterion tests to see if objectives had been met, even larger numbers defected, certain now that we were only playing some kind of word game. Some stayed with it—perhaps there was no place to hide—and we wrote some realistic behavioral objectives. We did get past Bloom's "cognitive" level, and we did write some usable criterion tests that could be validated. Most exciting of all: A few times we even were able to prepare and teach classroom courses to meet the objectives! (By now it should be obvious that I believe. I do, I do.) It wasn't impossible—it did work—and the end product was better than most of what had gone before. But that wasn't the true problem.

'Hey, when you've got your job analysis, you've already done your work on objectives.'

Now the formidable foe: Some of us tried to pass this exciting knowledge to others. Wow, instant World War III! A few at a time could take it, if carefully nurtured. A subordinate, someone new in training who was eager to learn, even a few old diehards were able to make it. But in a seminar of 25-30 antagonists we didn't stand a chance. Give the enemy a little moral support and you had open rebellion. With time the enemy became both strong and silent—a dangerous, deceptive situation. (It was like a silent protest against motherhood.)

Those of us who felt obligated to keep this very sick calf around wondered whether we really were nurturing a hideous monster that would rise to devour us. We also wondered that such a simple concept could be so hard to sell and teach. The key lies there.

The real monster

The problem that became obvious had nothing to do with our ability to teach objectives or with people's reticence to accept the concept. The truth of the matter? *Most people just didn't know what they wanted to teach their students to do.* There were few real job standards. There were some job descriptions, but they were useless for the most part as performance standards. This was especially true of supervisory training (which explained the many come-and-go fads there), but it also was true in skills training.

Strangely enough, experiments with programmed instruction told this all along, but we weren't wise enough to sense the connection with classroom training. The P.I. people were pushing for something labeled "task analysis," which sounded too complex to be of much value for us practical-minded trainers. It finally dawned that they were saying: "Find out what the job is before you even write an objective." Again the light, and an obvious conclusion: Our training can only be successful if we know what acceptable on-the-job standards are.

Now meet the monster's big brother. Would you believe that organizations frequently can't agree on what job standards *really* are? Would you believe that they appear not to worry about it? ("Don't spend your time worrying about performance standards, just teach them how to do the job.") With this added obstacle, only a remnant stayed with the battle. That's really the point of this article—I was one who dropped off at this point.

I still believe and have a pain-wracked body to show for the many battles. I still believe there must be objectives and criterion tests before you can successfully conduct a training program (and know you've been successful). But I've also found a way to teach teachers without coming away torn and bleeding.

Sneak up on them

Spend all the time teaching *job* analysis. (Avoid the word "task," because most of us do "jobs" rather than "tasks.") Let them analyze the job to be taught in detail as great as they want. Play around with it, perhaps. Analyze what they have analyzed. Is there a better, quicker, cheaper way? When they finally have broken down the job into tiny parts, and put it together piece by piece, performance standard by performance standard, limitation by limitation, I give them five minutes on objectives. They tack a few words on the job analysis, and never recall their desire to resist behavioral objectives.

This past summer Dugan Laird and I did some extensive instructor training with one of the automotive firms. An interesting gimmick was a sum of money to be given away by means of a point system. The points, to reinforce good answers and quick responses, were given to the first person who verbalized any concept we were trying to develop. At one stage of each session, after extensive work with job analysis and a few minutes on objectives, we offered 1,000 points for "a concept or conclusion that is right before your eyes." (The job analysis work was hung around the wall.) Sure enough, someone would say, "Hey, when you've got your job analysis, you've already done your work on objectives!" He got the thousand points.

[It so happens that this particular] group of experienced trainers was a well-organized band on record as rejecting behavioral objectives. They did not (and still don't) have that feeling about job analysis. Now they are quite tolerant of behavioral objectives as well.

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CONFESSIONS OF AN INSTRUCTIONAL DEVELOPER

This fictional case history of an inexperienced developer and a mismanaged program is a lesson to anyone involved in systematically designing instruction

BY MICHAEL D. MAGINN

It was one of those nights, the kind that make you wish you were a pharmacist instead of an instruc-onal designer for a consulting company. The client review that day had been harsh. The information we had packaged so carefully into instruction had shifted around like a glob of mercury in the bilges of a tramp steamer. was 7:30 p.m. before the reviewers from the client company were satisfied and on their way back to the airport.

As a respite from the pressures of he day, I stopped by a cocktail lounge near the office building before going home. I was ordering a drink when I caught a glimpse of Jerry Jones, another instructional designer for the company, huddled in the corner of the bar. From what I could see, Jerry had had a rougher day than I.

I walked over and sat down.

"Another hard one?" I tossed out with the insouciance of an RAF pilot turning from his hundredth mission.

"I've seen worse," said Jerry, living up to his part.

"What was it? A rough review of teaching points? Objectives? Script?" I ked, trying to be delicate. Jerry Jones was a good man, a great in-uctional designer whose courses have been invaluable to a wide range client companies. He'd been developing sales training, product training, d technical training for as long as I could remember. He'd designed self-dy, group courses, seminars, convention poster sessions, you name it. e was an expert at putting together simulations and games. He could diagnose a knotty performance problem the way some men analyzed batting averages. His evaluation plans were a study in statistical rigor. He was honest to his instructional design ideals. But it looked as if he took some pipe on this last one.

"It's been a rough lesson in the foibles of instructional design and development," said Jerry, his eyes catching mine.

"Why don't you net the whole thing out for me? What went on?" I was more than curious. Jerry obviously needed someone to talk to.

"Well, okay," said Jerry, brightening somewhat. "I guess we all need to confess once in a while. I was doing a repairperson training program for the C-3 for Hermosa Manufacturing. I did a careful needs analysis and came up with what I thought was a really pure, academically speaking, recommendation. I said that they needed a continuing, fully monitored, supervisor-involved program with tons of feedback from C-3 users and performance assurance. If we'd implemented that program, we would have had the C-3 repairpeople working 300 percent smarter with less down time and all that. That was my first mistake."

"Oh?" I said naively, knowing that clients tend to ignore the importance of planning an implementation and control program for field-based instructional packages.

"Yeah. It turns out I wasn't listening to what their management was *really* saying. Underneath all the puff about getting standards of performance raised, all they really wanted to do was reduce their training bill. That group session they were holding every week was taking people out of the field for too long. Too much motel money, know what I mean?"

"So their management just wanted to save some bucks by shifting to a self-study, field-based program, cutting out the student expenses of the group route, right?"

"Yeah, with no implementation plan. But that's not all," Jerry said, winding up. "After we agreed to give them what they wanted, we started scheduling the development of the program. First, the development of objectives and teaching points; then, scripts and workbooks from the prototype materials; and, finally, a big field test after which we get into media production. Well, some scheduling genius, who must have come out of marketing, gave the design team exactly two weeks to put together the teaching points and objectives. And, he gave the client four weeks to review the materials. You figure that out. Two weeks to write the objectives and content outline and four review weeks."

"Maybe there was..," I muttered.

"...That was because the guys who were reviewing the course for the C-3 were located in three different departments and had never met and never wanted to. There went two cardinal rules down the drain — not providing enough time for front-end design and getting too many people in the review cycle with sign-off approval authority. I knew the program was going to be a disaster from then on."

"I'm beginning to see what you mean," I said, staring into the dregs of my sherry on the rocks.

"Then they assign a subject-matter expert to us. Some guy who thought he was the world's only expert on the C-3 and who wanted to make our instructional program into a monument for himself. He seemed to think we were writing a textbook on the C-3. He couldn't understand that we were trying to develop performance-oriented instruction that didn't require all those precious tidbits of specious information he was trying to jam into the program outline. So, our instructional objectives were not really objectives at all, just fancy eyewash."

"Couldn't you control the guy?" I asked, knowing Jerry's reputation for gaining rapport with subject-matter experts.

"I tried. The trouble was his bosses, those three reviewers scattered throughout the client company. They thought their SME had great insights into C-3 repair philosophy. These guys have got the philosophy bug, too, and they started tossing all kinds of unnecessary information into the program. All they wanted to do was pour a ton of information into the students' heads without considering what we wanted them to *do* with that information. What the hell, I gave them what they wanted — a gigantic load of information with great-sounding objectives written neatly at the top of the page."

"So you kind of abandoned the idea of using objectives as guideposts right at the beginning, eh?" I asked, penetrating his gloom.

"Sure. And once you forget to hang your information-gathering approach on performance objectives, you simply don't know when to stop adding information to the program. The whole thing becomes arbitrary and opinion-based. Every time the subject-matter expert or any of the reviewers had a good idea about what should be in the C-3 program, they would call me up. And I, I'm sorry to say, would put it in."

"It sounds like you had two big mistakes going there. The client really didn't understand performance-oriented instruction. And by not using objectives to guide the development, the whole exercise became vague." I was trying to use a little Carl Rogers technique on Jerry, who sounded as if he needed it.

"It was a loop that ended only because we were running out of time. The total six weeks of information gathering for objectives and teaching points were spent trying to synthesize the perceptions of three different reviewers into something that looked logical and coherent. We could have gone on adding information until we had a 1,500-page textbook defining the C-3, its design, and the physical theory behind its operation. But as I said, what the hell...."

The cocktail hostess got us another round. Jerry's face was strained in the blue light of the television over the bar.

"We finally got a set of prototype workbooks and audio scripts produced for the C-3 program. Because we weren't really pegging our instruction on objectives anymore, the exercises in the workbook centered around whether the students could *remember* the information they had just heard or read, not if they could *perform* some operation connected with the C-3." Jerry paused as the hostess delivered the new round. "I could have saved the program there by making up some real performance exercises that would have had those students out of their seats and into the workings of the C-3, solving problems and building concepts. Instead, we had them playing word games with the subject-matter information we gave them, filling in blanks, picking the missing word from a list. Nothing that increased their ability to work with the C-3. We had a textbook with word puzzle exercises inserted every few pages and an audio script that was so dense in information that even a highly verbal college graduate student couldn't catch the message, let alone a high school graduate repairperson." Jerry was angry by now.

"Then, get this, *another* subject-matter expert is hauled in to review the work of the first SME *after* the program was ready for field testing. Naturally, because three-quarters of the material was opinion, the second SME recommended some fairly extensive changes, based on *his* opinion."

Jerry had had a rough time. Second-guessing and arbitrary changes become even more complex when egos get involved.

"So, at any rate, we had a field test. That's the most embarrassing part of the whole experience. The company invited eight people to go through the prototype materials, but only four showed up. I guess the company didn't take it seriously. These four test people were already qualified C-3 repair experts. All we did for the field test was get another round of kibbutzing and information dumping until the program began to look like the proverbial camel. We never did test whether or not the program could affect performance the way we wanted. But, since we had forgotten about objectives and performance a long time before that, I guess it really didn't matter."

"Then what?" I asked, incredulous at Jerry's bum luck.

"Nothing, that was it. The workbook and audiotapes were produced, and the program was shipped out into the field. From what I hear, it's warmly received by the repairpeople. Of course, the company isn't collecting any data to show the impact of the program, but, frankly, I don't think they want to. It may reveal something they don't want revealed, namely, that the turkey doesn't work. So, they're satisfied with it as is."

"What an incredible story," I said. "At least you're not being blamed for the disaster it could have been."

"On the contrary, my young friend. I am somewhat of a hero to the C-3 folks. No one in their company could do what I did, which was to arbitrate and negotiate about 20 people's opinions about what to put into a new textbook on C-3."

"Well, maybe one day we'll be able to produce some really effective...."

"Maybe, buddy, maybe. But I'll leave that to you. For the next three months, my job is wrapped around another C-3 project."

"Are you kidding? Should I congratulate you?"

"I think you'd better hold off. You see, my task is to convert the self-study program we just did for the C-3 to what they call a more flexible format—group study. And that's where we started."

Jerry Jones cackled shrilly as I slid out of my seat.

Like I said, it was a tough night for instructional designers.

How to avoid disaster

The instructional design and development process for training programs and materials involves the cooperation and coordination of many people. Usually, at the center is an instructional designer who may have a lot to do with managing the project's progress. If you know one of these types, tape this on his or her office door:

- Don't be too pure. Listen to what the client says he wants and then listen to what he's really saying. If you fail to meet management's hidden objectives, you may encounter trouble down the road.
- Don't forget to recommend a simple but effective implementation plan. Many instructional programs "installed" in the field fail because no one uses them as they were designed to be used.
- Don't forget that instructional design and development take time. That's axiomatic; remind the client that the more restrictive the deadlines, the less effective the process.
- Don't work with more than one sign-off authority. Developing curricula materials from scratch can be difficult enough without having to reconcile the differences of a group of disparate reviewers.
- Don't fail to give the client a mini-course in performance-oriented instruction. Everyone involved should have a clear understanding of the process and tenets of the instructional design process.
- Don't ever forget the assistance you get from instructional performance objectives. They let people know your goals, they aid in planning, and they are measurable criteria for the success of the program.
- Don't get into an information-dumping situation with an instructional program that is designed to change performances.
- Don't forget to stress the importance of evaluating the impact of the program you develop. If you spend 90% of your energy developing a program and only 10% evaluating it, you're just going through the motions. Evaluating prototype materials and updating existing materials are steps that often are neglected in developing commercial material.

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HOW TO KEEP GOOD PROGRAMS ALIVE

Sure, a fad is a fad. But sometimes valuable training courses wither and die just because we fail to nurture them

BY LINN COFFMAN

Trainers see a lot of programs come and go. In the '40s, everyone was talking about "J" programs, all of which began with the word "job" and aimed to teach women how to perform factory jobs vacated by men fighting World War II. Few trainers today even know what the term means. Later on, training fell in love with concepts like self-awareness and sensitivity. The past three decades have brought up organizational development, group dynamics, team building, problem solving and brainstorming. They haven't disappeared, of course, but today's buzzwords are leadership, participation, situational problem solving and career planning.

Were all these training approaches merely faddish? Should we assume that while it was important to develop a sensitive, self-aware work force in 1968, the concept is dated and no longer relevant to today's work force? Or did we just grow bored with the same old thing?

The answer to both of these questions is a qualified "yes." But the truth is that some training programs remain popular and successful over time. It seems logical then, that there must be a set of common factors that add up to a long-lasting, successful training program. Divining them is the tricky part. But doing so is essential for frustrated organizations that invest time and money in a training program that soon ends up on the trash heap.

In his doctoral thesis on the subject, Paul Taylor, an independent training consultant in Philadelphia, concludes from research that certain elements are crucial for the success of supervisory training programs. Most important is that supervisors understand the need for training. Then it must be backed by top management and middle management. Finally, a thorough needs analyses must support the program and supervisors must attend it voluntarily.

What's more, other characteristics of good, long-lasting programs have surfaced in various research projects over the years. They are involvement, need, a champion, innovation, planning, evaluation and excitement.

Involvement

To make a program work, a number of people from at least four vertical levels of the organization (assuming a large organization) must take an active role in getting it off the ground. But that's not enough. The training manager needs to act as cheerleader to sustain that commitment. Several techniques will help to fan the flames of involvement:

- Use task forces or steering committees to plan, execute and evaluate the training.
- Train several groups within the organization at about the same time, using the same objectives.
- Give specific assignments to several key people and emphasize how important they are to the program's success.
- Recognize everyone who contributed.

Need

This seems obvious. If the training loses value, why keep it around? But guaranteeing this characteristic can become a bit problematical, especially when a loud, powerful voice from on high says, "Our people really need this training. Do it."

A training program must meet a need of everyone who participates—and at various levels of the organization, people's needs vary. For instance, at lower levels people want to know how to handle specific situations. At higher levels they want to know what principles have widespread applications.

The trainees' managers must help determine what kind of training their people will receive. Some will even offer to help give it. Afterwards, almost all managers need to know the results of the training. Meeting those needs of managers, along with the needs of the trainees, gives your program a better chance of success.

It helps to include this group in your needs analysis when you're assessing the target population. And don't forget the trainees' subordinates—they can provide some support for the program too, if they feel included.

Champion

Once a program gets rolling, momentum can help sustain it. Reaching that point, however, sometimes requires a nudge from a strong, upper-level proponent. The champion can be one person or a small group of dedicated people. Champions demonstrate their commitment by pushing their programs, recruiting large numbers of people and searching for needs. They advertise the program's results widely and enthusiastically. They are persistent and determined to surmount obstacles. When necessary, they employ their clout on behalf of the training project.

Champions must be selected carefully. Seek someone who has already enjoyed success as a champion. Success breeds confidence and the champion may be only too happy to shoulder your venture. If an experienced champion isn't available, the program instructor may act as one. Successful instructors and champions often share these four characteristics:

- *Organizational credibility.* Search for these characteristics: making decisions competently and professionally, being consistent in communications with others, having a good reputation, showing initiative in completing assignments, maintaining high professional standards, and dealing fairly and professionally with other departments.
- *Communication skills.* A good communicator expresses ideas clearly and succinctly; uses examples, anecdotes and analogies to demonstrate ideas and concepts; is effective in groups or with one other person; adjusts the level of speech to meet the audience's needs; often is a group leader; and is able to win understanding and acceptance of his ideas.
- *Leadership.* The leader guides groups toward accomplishing tasks rather than doing it herself. The leader influences others by example, introduces innovative ideas that are accepted by others and works to maintain high morale within the group.
- *Sensitivity.* The sensitive champion has high self-esteem, listens and responds to others with empathy, and isn't afraid to ask others for help.

Innovation

Creative, imaginative ideas are crucial to the workplace and to successful training programs. They can apply to any aspect of the program and sometimes lead to greater involvement. For instance, one champion decided that newly trained supervisors should be publicly recognized. She persuaded several key managers to assume the task, and they organized a celebration in which each manager spoke to a large group within the organization, citing specific incidents in which supervisors had applied their new skills.

Planning

Unless it is well-planned, training won't be successful and enduring. From needs analysis to initial buy-in, from execution to follow-up, planning is crucial. It ensures that the training objective is understood and the program is easy to follow. The most effective planning is thorough yet simple, and incorporates all of the foregoing characteristics.

Excitement

Successful training programs have an aura of excitement about them. Can it be planned? Should it be? Certainly, the excitement created by a celebration for program graduates can be planned. And those who plan sales meetings know that excitement can motivate people. Fostering excitement at each phase of the process is one of the responsibilities of the training manager, wearing his cheerleader hat.

Frequent evaluation

Finally, evaluation must be frequent and thorough. It may be automatic in some organizations, especially if the training program is a standard topic of regular staff meetings. To be most effective, the evaluation must involve large numbers of people and be sensitive to changes in needs that might surface in the trainee population. Like planning, this component of successful training incorporates the others: It should include a critique of the champion's behavior, it should be innovative, simple and well-planned, and it can be a source of excitement because it reinforces the value of the training department's efforts.

There's no guarantee that programs will endure if they incorporate these principles. After all, some programs become useless when their content is dated. Others teach principles that don't work as well as we originally thought. But using these guidelines will ensure that the program lasts as long as possible.

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FIVE WAYS TO KEEP SUPERVISORY TRAINING ALIVE AND WELL

It's a matter of fundamentals, not bells and whistles

BY MARTIN M. BROADWELL

Supervisory training will be around as long as we have supervisors. And as long as we have supervisory training, we'll see both good and bad examples of it. While the role of the supervisor has changed over the years, some of the basic jobs, hence some of the basic training, should remain the same. There are certain things we can do to help ensure that supervisory training keeps meeting the demands of the organization and the supervisors. Here are five of them.

1 Never train for training's sake.

There's a tightrope here between mandatory training ("All new supervisors must have the basic one-week course within the first three months of making supervisor") and all-inclusive training ("Every supervisor at first level will be trained this year").

Mandatory training that specifies certain needs to be met by certain categories of supervisors surely has its place. New supervisors have obvious, predictable needs for specific skills. They need these skills quickly, as soon as possible after entering the supervisory ranks. They almost certainly will be poor at delegating, training and conducting performance evaluations, and probably will lack the communication skills required to get others to do the job they've been doing. They won't have a very good idea of the role of the supervisor in the organization. They may not be comfortable with their new authority; in fact, they probably won't know how much authority they have or when to use it.

On the other hand, giving blanket training to everyone in every supervisory job is wasteful. It isn't likely to produce much lasting change in the performance of most of the people trained. There are times when we must train everyone on a new procedure or policy and even on a new "program" we are embarking upon—examples being quality-improvement or employee-involvement programs. In these cases, proficiency in performance in the new program is the objective of the training, and everyone knows that. This gives the training a better likelihood of success.

On the other hand, when we decide that everyone must have a one-week course in "communication skills," we don't have the advantage of an obvious *new direction.* When we force all supervisors to attend, often by getting top-level executives to send letters to other top-level executives demanding participation, the trainees who show up are reluctant dragons with a "try to teach me if you dare" attitude. (We usually dare, but fail.)

2 Teach from a needs analysis.

The little bit of extra effort we expend in identifying the deficiencies pays off in improved training and better job performance. We don't have to look at all of the supervisors, but we must examine a sufficient number of them to get a legitimate cross-section of real needs. We can send a questionnaire to a large sample of supervisors, analyze the results and then do some one-on-one interviewing. We can talk to certain bosses of supervisors (second-level managers) to find gaps in desired performance. If we avoid the "cafeteria" approach to surveying and interviewing—presenting lists of courses—and instead ask questions that will really allow the supervisors to tell us where they're having trouble (rather than just letting them name courses that sound interesting), we'll get a good idea of which objectives to include in our training.

It is infinitely easier to conduct an effective training progam when a good needs analysis has been done. The instructor has less occasion and less reason to be defensive about the course content. It's very heartening for an instructor to be able to say, "One of the things you repeatedly asked for in the needs analysis was. . . ."

A reminder: Just as we should include money in the training budget for evaluation, we should also set aside money for the expense of doing the needs analysis.

3 Deal in reality.

Use real things to train with. Deal with real problems, involving real-sounding people. Team exercises are fun and the competition is exciting, but any exercise we use should leave the participants with a new, *practiced* behavior. If we're trying to teach some concepts about human behavior, such as how people perform in team activities, the students should reach these conclusions on their own, then be given an exercise—one that resembles their job—to practice putting this new concept to work in their own (simulated) environment.

In building a simulation, there seems to be some kind of hazy line between enough reality and too much reality. If we're doing an exercise with hospital supervisors and we say, "The nurse has just taken the patient's temperature," somebody in the class will come back with, "But our RNs don't take temperatures!" Now the case study or role play goes down the tube while we get bogged down pointing out that it can be anybody taking the temperature. If our in-basket exercise talks about bank branches, and some of the supervisors work in banks where there are no branches, they'll get caught up in the discrepancy rather than the objective of supervising in any bank situation. But on the other hand, talking about RNs or branches will almost always be superior to trying to train the hospital or banking supervisors with an exercise focused on working the night shift at a pulp mill.

4 Train only within the organization's policies.

Trainers have no right to set policy, and that includes how the organization's supervisors are supposed to treat their employees. You aren't going to like this, but if the approved policy (officially or unofficially) is to treat employees like slaves, then the supervisory training ought to be aimed at making good slave masters out of the trainees.

This may be the most important criterion when evaluating packaged programs. Show them to top managers and see if they're willing to support the things taught. If top management has trouble with shared leadership and the course is designed to teach shared leadership, trainers should avoid using the program. If the program is being designed in-house, the case studies should be tried out on upper management to see what kinds of solutions should be given in class.

5 Make the training count.

Supervisors are costly creatures. Taking them off the job for training may not effect a change in production *immediately*—as is the case when you remove hourly workers—but the time away from the job does cut into planning, appraising, disciplining and all kinds of essential administrative tasks. That's a fact of life, and it cries out for efficient *and* effective training.

The rule: *Everything we do should be going somewhere.* Every case study, every role play, every lecturette, every exercise should have a specific objective. When the activity is over, participants should be left with some kind of useful skill or concept or understanding. It's fun to have fun, but it's more fun to go home better equipped to do the job.

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WHY LEADERSHIP TRAINING FAILS

Avoid these five pitfalls and make sure your next supervisory leadership seminar succeeds

BY KENNETH D. HAZEL

Leadership training, as a rule doesn't work. At least that's what many managers have told me over the years. Their personnel who attended such programs showed no improvement in their people handling skills. In my own experience, I have returned to companies where I thought we would see excellent results from a seminar I had conducted only to find it was as if I had never been there. Why? There are at least five reasons which we'll get to in a minute. First, five simple rules for success with supervisory leadership seminars:

1. Start with management commitment to a consistent and stated leadership philosophy (which implies that all levels of management must be trained),
2. Condition receptiveness to training by making it easy for your people to attend and concentrate on the training,
3. Make certain the training materials and methods are pertinent,
4. Plan a follow-up program with teeth and impact, and
5. *Expect* your training to succeed.

Now, the five reasons so many supervisory leadership training seminars fail:

1. Lack of follow-up. When I questioned managers who downgraded leadership courses, they usually said that a person was sent to the course and then expected to use the material. No follow-up action was initiated. Good leadership is a skill. To become skilled in something, one acquires knowledge, then practices and uses that knowledge until competent. With a machinist, for example, becoming skilled is easy. He has to use his knowledge in order to do his job. The same isn't true with leadership. A person does not necessarily have to use leadership techniques to get a job done. In the crises that confront most supervisors daily, it becomes easy to drift back into old habits, methods, and the use of direct authority rather than skilled leadership.

A foreman at a Union Carbide plant, a year after he attended my seminar, made the remark, "That is good material if a person would just use it." A classic example of what happens when follow-up is ignored.

One method of follow-up is to hold meetings about every two months with seminar participants to discuss what they have tried, what results they obtained, and why they think those results ensued.

Frequency of follow-up depends on the stage of sophistication of the local management environment. A group of supervisors 50 years old, with 15 years experience and a plant history of demanding and being "tough" as the leadership style, will need more follow-up and closer direction to break their old habits. A group of younger persons "raised" in a people-oriented atmosphere might meet every two months.

Most managers readily see the importance of follow-up if it is properly emphasized. To make the seminar truly successful, management must persist in follow-up after the initial enthusiasm or halo effect has worn off.

2. A too heavy chain of command. Subordinates tend to mirror the attitudes of their supervisors. A person returns from leadership school full of enthusiasm, but the boss is opposed to the principles learned. Soon that supervisor will again be modeling his boss. A supervisor once told me that he finds it very difficult to be hollered at and degraded for 30 minutes, and then do a 180-degree turn and treat his people with compassion and understanding. He said that after a session in which he is the victim, he usually goes out and raves at his people for 30 minutes.

3. Lack of participant receptiveness. Ideas are accepted and a willingness to try is created if the attendees are *willing* attendees. When participants aren't receptive, they resent the seminar and will resist, rather than participate with an open mind.

There are a number of receptivity dampeners: Attending on company time versus own time, sufficient prior notifications, interruptions, prejudice, convenient scheduling, overcrowded or noisy classroom, other programs or plant activity on their minds, anti-management attitude by hourly workers, or a strong, aggressive union can all take the lilt out of going to a training program.

I recall a seminar I held at an axle plant. Due to a mix-up, the participants were told about it only a few hours before I arrived. The exhaust fan in the classroom was so noisy no one could hear. The room we moved to was overcrowded and people were leaning on the walls. A thunderstorm cut the electricity and the room emptied as everyone headed for the plant to control vital equipment. I got so far behind I started reading essential points from the book to catch up—which bored everybody. On top of all this, the supervisors had all been working 10-15 hours of overtime a week. They should have been home in bed not in my workshop. Results from this seminar were, to say the least, minimal.

This same plant highlighted another factor that can affect receptiveness—*overtime*. Plant management said their supervisors had an excellent attitude toward overtime, and they did. The participants had worked long, hard hours to get this plant started up, but they greatly resented spending their time in a situation that was not essential to the plant effort. They were tired and needed rest.

Another example of a receptiveness

factor is *backstabbing*—either at their own or at management level. Participants in this type of situation are very cautious, won't participate freely, or else become so caught up in their own problems with management that they can't visualize using the techniques discussed.

Having subordinates or superiors in the same class can cause inhibition or even antagonism. I held a course at a Kentucky plant that included a quality control supervisor and his inspectors. The supervisor had several bad habits and he resented my supposedly degrading him in front of his people. When I returned the following Saturday to complete the seminar, I was met with downright hostility, which had a negative influence over the whole group.

Plant operating conditions will affect receptiveness. I went to a plant that had grown rather rapidly from 600 to 1600 people. But their tools and material handling procedures had not developed with that growth. For instance, if a supervisor had six air guns and one spare to tighten nuts before, now he had 20 air guns but still only one spare. When these supervisors came to work, the first hour of their shift was spent scrounging tools—stealing from another line if necessary. The second hour of their shift was spent looking for parts. Nobody knew where anything was. With the first seminar group, I stopped holding a course and let them gripe for 45 minutes. The second group griped for an hour and 15 minutes. The resentment and frustration against plant operating conditions poured out. Soon they began feeling sorry for themselves and started saying this course was a waste of time. Although I made an immediate adjustment in my presentation, I nearly lost the group. An inaccurate briefing was also at fault here. Had I been aware of these problems and attitudes, I would have customized my presentation to their situation.

Past plant atmosphere or past example will sometimes have a negative impact on receptiveness. If the supervisors have been trained with poor leadership and if management has used favoritism and other faulty practices, the participants may be unbelieving as to the validity of good people-oriented leadership. A recent newspaper article stated that a child-beater was usually a person who was beaten as a child—it's the only example he has known. While this is an extreme illustration, the same principle applies to supervisors and the previous examples they've known.

Careful planning and accurate analysis of participants' situations will usually ensure a reasonably successful reception to the seminar. Ideally, participants should attend the course on company time or be given compensatory time, and have an adequate replacement on the job. Positive action to eliminate or minimize their own problems should be in process prior to the seminar.

4. Seminar material isn't pertinent. A chemical plant supervisor once remarked that their company course was like college 101 psychology. The participants couldn't relate hunger, fear, and sex to a worker who didn't want to mop a floor. In other words, the material did not relate to their situation. This is usually typical of college or private courses that have no real understanding of how a supervisor or manufacturing plant works.

Sometimes participants are overqualified or underqualified for the level of presentation. The material is boring because they've heard it many times before or else they don't understand the words. Directing seminar material to the skill level and understanding level of the participants is a must.

Actually, we could say that a participant is not receptive to a seminar because the material is not pertinent to his situation. But I emphasize pertinency because we are sometimes in awe of educators and make the mistake of letting that "awe" overcome practical, common sense.

Making sure material is pertinent is accomplished two ways. The pr nary briefing should identify th majority of participants into th lowing categories:

- Beginners—Little fundam leadership knowledge.
- Intermediate—Good fundam knowledge but not skilled at handli people situations.
- Advanced—Excellent knowled of fundamentals and sound about handling people situations.

The seminar leader should category at the beginning of th seminar by giving a couple of tions and see what answers he gets. can then adust to a more basic or advanced level of presentation. I use question on honesty and answer complaints to do this. Where a gro may be borderline as to proper cat ory, I use a written test to determ the skill level of the group.

Methods of using techniques mu be realistic, too. It would be impra cal for a seminar leader to tell a te foreman supervising 80 persons have a relaxed, business-free d sion with each person once every to foster better communication foreman may immediately dism this technique as not being perti to his situation and not realize th for him, the frequency might be every week.

5. Bad expectations. The final m to ensure that your leadership training succeeds, is to *expect* it to su Numerous managers have said to me they don't expect to see any results from a seminar. Just the fact their people have been expos enough. It will rub off. These managers have set their standards too think that, in the past, management didn't try to measure the perform of a leadership course and unconsciously lowered their expecta The programs that developed fully met their expectations—manage expected nothing and they got nothing.

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FIVE KEYS TO SUCCESSFUL TRAINING

Why do perfectly good training programs fail to improve skills on the job? Here are nine causes and five ways to combat them

BY DEAN R. SPITZER

It makes no difference if you're teaching new welding techniques in a vestibule off the factory loor, or communication skills in the xecutive suite. From the classroom nstructor's point of view, training ucceeds if the trainees demonstrate that they have mastered the material eing taught. But from the point of view of the training department—and certainly of the organization—a program that is successful under that definition can be a complete failure. It ils if the trainees don't apply their new skills on the job, and it fails if they o apply the skills but their performance doesn't improve in a way that benefits the organization signifintly.

Like a lot of people in the training siness, I have studied the reasons why training fails and tried to figure ut how to make it more likely to succeed. I keep reducing the causes and cures to fewer, more inclusive categoies, always in search of a more elegant solution. At this point, my list of uses has been pared down to nine items, and the list of cures (success tors) to five.

Why training fails

1. *Limited training resources are not focused on the most promising projects.* Training resources often are wasted on projects that are doomed to failure, either economically or politically.

2. *The real reasons for training are not clear.* Training often is an inappropriate response to a performance problem that cannot be solved by increased knowledge and/or skill.

We all have the tools to ensure that training succeeds.

3. *Training alone is never powerful enough to lead to long-term, verifiable performance improvement.* While training often will improve performance in the classroom, it is rarely potent enough to overcome the resistance to change inherent in the work environment.

4. *Training is aimed at the symptoms, rather than the causes, of performance problems.* Attempting to eliminate the symptoms will not solve the problem.

5. *Critical non-training factors are ignored.* The success or failure of even the most effective training depends on a multitude of factors.

6. *Management support is lacking.* This is usually because trainers have failed to mobilize it.

7. *The central role of the supervisor is not recognized.* Aside from the person (trainee) who actually does the work, no one is more important to the success or failure of training than the trainee's supervisor. As the primary manager of the work-performance system, the supervisor's attitudes and involvement are critical.

8. *Too few employees are trained, and the ones who are trained are chosen poorly.* When this is the case, untrained employees will quite likely reconvert trained employees to the same old ways of doing things.

9. *There is little or no preparation or follow-up.* Drop an employee into a training program and plop him back on the job; little will change.

Training success factors

Training is not destined to fail. We all have the tools to ensure that it succeeds. What it takes is the systematic use of five training success factors: value, focus, power, mass and duration.

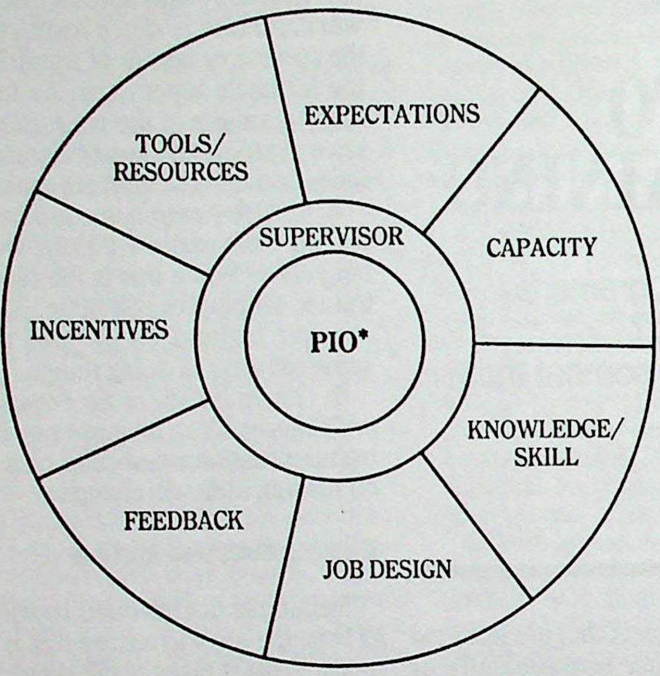
1. *Value.* Every organization is full of training needs or "performance improvement opportunities." Trainers respond to them either reactively or proactively. The reactive trainer jumps when a manager says "train"; the proactive trainer is constantly on the lookout for the most valuable opportunities to improve performance in the organization.

At least 90% of the training requests I receive are inappropriate for one of two reasons: Either a disproportionate amount of resources would be required to achieve minimal results, or the training is doomed to fail because of the negative attitudes of participants or supervisors. These are low-value performance improvement opportunities. A high-value opportunity exists when there is a large performance gap among employees in the same job or task, and when closing this gap can mean significant increased revenues or reduced costs for the organization. Look for these opportunities in your organization. They may not be obvious, but when you find them they will produce the greatest impact.

2. *Focus.* Performance improvement (a much more appropriate term than training) should focus on all rel-

evant performance factors. Most training programs aim at improving only knowledge and skills; they ignore the other crucial aspects of work performance (see Figure 1).

FIGURE 1
FOCUS


EXPECTATIONS
TOOLS/ RESOURCES
CAPACITY
SUPERVISOR
INCENTIVES
PIO*
KNOWLEDGE/ SKILL
FEEDBACK
JOB DESIGN

*(PIO—Performance Improvement Opportunity)

Lack of knowledge or skills is only one factor that can cause problems. Others include unclear expectations, lack of capacity, poor job design, inappropriate feedback, lack of positive incentives and inadequate tools or resources. The supervisor, whose cooperation is a prerequisite for addressing any of these factors successfully, is at the hub of the wheel.

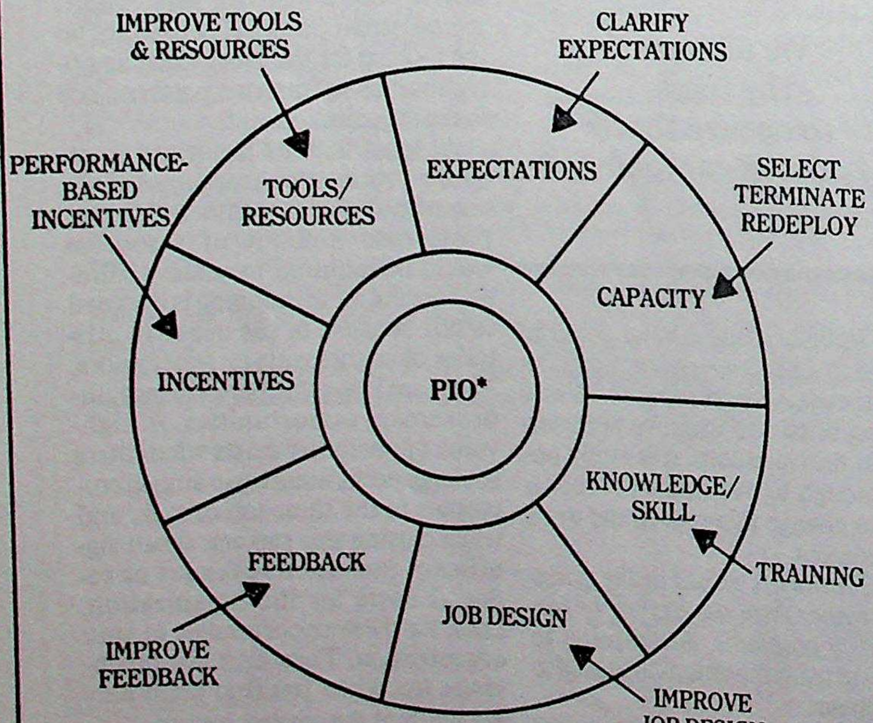
It is virtually impossible to achieve long-term performance improvement with a one-shot training program.

The supervisor usually controls the employee's immediate work environment and, consequently, factors such as performance standards, job knowledge, work procedures, information about workers' effectiveness, performance appraisal, promotion, and supplies and equipment.

Truly effective performance improvement interventions (a.k.a. training programs) require performance improvement consultants (trainers) to focus their efforts on more than one of these factors. Focusing on knowledge and skills alone and failing to involve the employees' supervisors virtually guarantees that the project will flop.

3. *Power*. Performance improvement interventions must be powerful enough to overcome all the forces in the system that resist change. Since lack of knowledge and skill is not the only cause of the problem, training alone cannot solve it. You need to take a multiple approach (see Figure 2).

FIGURE 2
POWER


IMPROVE TOOLS & RESOURCES
CLARIFY EXPECTATIONS
PERFORMANCE-BASED INCENTIVES
TOOLS/ RESOURCES
EXPECTATIONS
SELECT TERMINATE REDEPLOY
CAPACITY
INCENTIVES
PIO*
KNOWLEDGE/ SKILL
TRAINING
FEEDBACK
JOB DESIGN
IMPROVE FEEDBACK
IMPROVE JOB DESIGN

*(PIO—Performance Improvement Opportunity)

If the problem is due in part to unclear expectations, then an effort must be made to clarify these expectations. If employees lack the basic capacity or background to do the job,

A MODEST PROPOSAL FOR CONTINGENT REWARDS FOR TRAINERS

BY DEAN R. SPITZER

ceived a phone call recently from
voman who was inquiring about a
ion I was helping to fill in the
ing department of one of our
Among her first questions was,
at's the salary?"
en I explained that the starting
e was $30-35,000, she was horri-
Neither she nor her job-hunting
ds would be interested in a job
paid so little. When I told her that
wn salary was within that range,
eemed genuinely shocked. (Her
nt salary was $36,000.)
ad already been through this
rsation with several other call-
Some of them even seemed to
der the starting salary range an
t. Perhaps this latest call was
the straw that broke the cam-
back, but as our conversation
ssed, I became increasingly de-
ve. I argued that Kimberly-Clark
hardly be advised to pay me top
r for things I had achieved else-
—and in the past. I argued that
e human resources development
sion, especially, compensation
ld be based on results. I don't
whether I convinced the caller,
succeeded in convincing myself.
nversation forced me to think
t some important issues. I sat
at the typewriter and began to
on this little essay.
k we in the "performance tech-
y" field are losing some of our
sionalism. From a group of peo-
ho speak so convincingly about
gent rewards (for others) and
visdom of "paying for perform-
(the performance of others), I
entirely too much talk about
s and consulting fees. If we real-
ieve in contingent rewards, why
n't we be compensated accord-
Why shouldn't our salaries be
on the results we achieve? If we
ly convinced of the efficacy of
chnology, our skills and the un-
g principles of contingency
gement, there appears to be no
viable system of rewards for
performance technologists.

Would you be willing to put your money where your interventions are? Would you be willing to accept performance-based rewards: no money for no results, substantial compensation for outstanding results? We talk a good game, but are we willing to do what we constantly ask our employers and clients to do: bet money on our skills and technology?

I can't think of anything that would enhance the credibility of our field like this modest proposal. I think it would be wonderful to receive, say, 10% of any savings directly attributable to my intervention in lieu of a salary. I can't think of anything that would motivate me more.

Instead of being paid to run seminars, to develop self-instructional packages, to write CAI programs and to produce videotapes, how many of us are being paid to produce bottom-line results, verifiable changes in performance, cost savings, increased sales and high levels of customer satisfaction? And how uncomfortable would it make us if our paychecks depended on these results?

Some will object that HRD people have little or no control over many of the factors that determine success or failure in performance-improvement interventions. We complain that trainees are under our control only for limited periods of time and that any number of things can cause their new skills to deteriorate once they return to the job. But how much do we do to try to control the factors that impact performance on the job?

With follow-up and reinforcement technologies, we *do* have the tools to make a much more meaningful impact on performance than we currently achieve. We *can* gain management commitment to bottom-line results. I think we'd be amazed at how few of these constraining forces would prove insurmountable if our paychecks depended upon their circumnavigation. I think that minds would boggle at how much we could achieve if we were being paid for results.

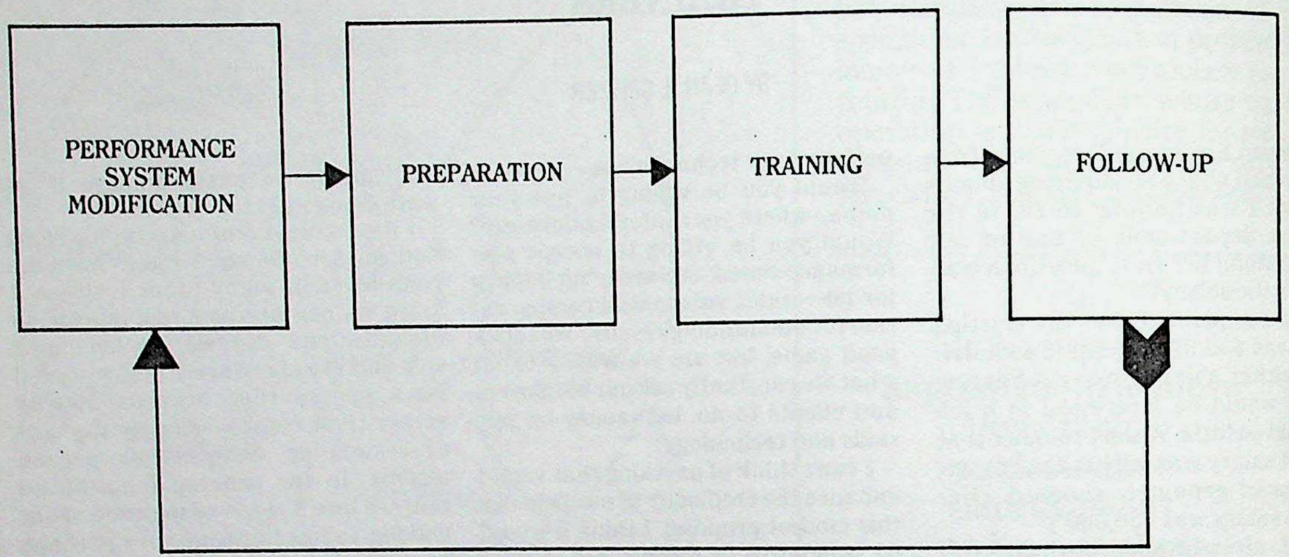
I have great confidence in my skills and my technology. I have the same confidence in many other trainers. I know we can produce real impact on organizations. But we are becoming soft and greedy. We're being co-opted by a system that rewards activity rather than results—exactly the sort of system so many of us preach against. In the process, I am afraid that we lose a sense of urgency about making things happen—and perhaps we lose some credibility as well. External consultants have some of this urgency and are, sometimes, paid for results. Internal "consultants" should operate under the same conditions. How can we talk with credibility to others about contingent rewards and performance engineering from the security of a salaried position?

I will accept a contingent salary anytime. In fact, before accepting my current job, I considered putting myself on the market under those terms. "For hire: in-house performance technologist on a contingency-fee basis." I never did, but now I wish I had. Maybe soon I will. I don't know whether there are any organizations flexible enough to accept such a challenge. How would other employees react? What would the personnel department say? How could the bookkeeping be done?

Even if you think this idea is off-the-wall, give it some thought. If you *could* work on a contingency basis, would you? The answer may tell you a lot about your own self-confidence, motivation and belief in the things you teach—and preach.

Reprinted from TRAINING, December 1983

FIGURE 3
DURATION



then new people might have to be selected or existing employees fired or reassigned. If lack of skills or knowledge is part of the problem, then training may be an appropriate part of the intervention. If the job is poorly designed, then work procedures may need revision. If employees are receiving little or inappropriate feedback, then feedback mechanisms and systems may need to be improved. If incentives are inadequate to motivate employees, then new performance-based incentive systems might have to be developed. If information or material resources are lacking, then better information or equipment might have to be found.

4. *Mass*. The concept of mass in training relates to the proportion of employees in any job category that are trained. If only a small percentage of the employees doing a particular job attend training, then the untrained employees are more likely to convert the trained employees back to the old ways of doing things than vice versa. A support system is usually essential for trained employees to maintain their new knowledge and skills over time. In other words, innovation loves company.

As critical as the proportion of trained employees is the credibility of those trained. Key "opinion leaders" may have a significant impact on the success of any attempt to change work variables in the performance system. If enough opinion leaders in a given job are trained, however, you will attain critical mass, i.e., a positive environment for change.

One excellent way to increase the critical mass of any training effort is by having supervisors train their subordinates. This method also will be likely to build supervisory support for continuing use of the new skills on the job.

5. *Duration*. I maintain that it is virtually impossible to achieve long-term, verifiable performance improvement with a one-shot training program. New skills take time to become part of the trainees' repertoire, and no habit (poor performance can be viewed as a bad habit) can b changed without a significant co mitment of time, as well as effort.

The concept of duration inclu four distinct steps (see Figure 3). First, all non-training factors in the pe formance system (e.g., unclear expec tations, poor job design, etc.) are ap propriately modified. Seco employees are prepared for training by supervisory contact, preview s sions and/or preliminary reading. Third, training sessions begin; id ally, they are timed to allow for o the-job application. Fourth, th trainer coordinates follow-up acti ties that also involve trainees supervisors.

Using these five success factors sys tematically can help you overco the nine major causes of training fai ure. If you start a training project wi a high-percentage performance i provement opportunity, and conside its value, focus, power, mass and ration, your limited resources probably will be well invested.

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20 WAYS TO ENERGIZE YOUR TRAINING

The objective is to improve performance.
The obstacle is resistance to change.
The challenge to trainers? Jump the hurdle

BY DEAN R. SPITZER

The goal of training is not training. The goal of all job-related training can be boiled down to e deceptively simple phrase: to ve long-term improvements in e way employees do their jobs. y excellent training programs fail achieve this result because their ex- ence lies in the training and not in performance improvement.

o design training processes pow- enough to produce results, it ps to keep in mind two concepts nded in the physical sciences. e first is *inertia*, the tendency to re- change; the second is *entropy*, the ncy toward chaos, disorder and erioration. Social systems, like cal systems, tend to resist ange. They are inclined to stay just y are, since the people who com- se them have a vested interest in atus quo. Social systems, like sical systems, also tend to deterio- over time unless energy is in- into them continuously.

his means that human-perform- ystems will resist efforts to im- ove them. They'll resist such efforts atter how rewarding and worth- ile the efforts are understood—in- ctually—to be. And even if you ve some improvement in per- ance, it will deteriorate over time it is constantly reenergized.

Small wonder that most training courses are too weak to combat the ubiquitous forces of comfort with the status quo, lack of management support for training, supervisor indifference, inappropriate trainee selection, lack of follow-up after training, low expectations for training, etc. But inertia can be overcome, entropy can be counteracted and training can be made a more powerful force for performance improvement in your organization. Here are 20 ideas to get you started.

1 *Run management-awareness seminars.* Most managers are woefully ignorant about training. It's not that they don't want training to succeed; they simply don't understand their role in the process. And trainers are at fault. We have failed to correct the tremendous number of misconceptions about training that exist throughout our organizations. Management-awareness seminars will give you the opportunity to explain the need for training and the essential role managers play in the success of training aimed at their subordinates. If you don't teach them, how are they ever going to learn?

2 *Define your own role in the performance-improvement process.* How many training departments do you suppose have a clear statement of their role in performance improvement? Very few. Managers need to understand that the training department is not a course factory. Its function should be to improve performance by any means available—means that may include both training and non-training interventions. You also should make it clear that analysis of performance problems before training and follow-up after training are not peripheral activities but part and parcel of your job.

All training departments need a clear statement of purpose and a coherent set of unit objectives. It's better to clarify expectations up front than to correct them later. And don't simply file these statements and forget them; distribute them and keep them in front of your staff at all times.

3 *Develop a public-relations campaign.* Everybody in the organization should understand the role of your unit: what you can (and cannot) do for them and what cooperation you expect. To reiterate, if managers don't know what the training department's role is, how can they be effective allies? Develop a brochure that explains the training process, from project selection to follow-up and evaluation. Reposition training as a proactive function.

4 *Target training at key-result areas.* Rather than simply reacting to training requests, go out and find areas in your organization that are ripe for training. Areas likely to offer the greatest payoff for effort expended include purchasing, where considerable money can be saved; departments with high turnover; and any part of your organization where new technology, new procedures or new policies have created significant changes. Develop a cost-benefit model to help you select high-dollar, key-result areas.

5 *Adopt a training "process" approach.* Forget training "programs." They don't work in the long run. A "process" approach prepares people for training with a pre-course discussion with their supervisors and perhaps some preparatory exercises to create realistic expectations. It closes the course with an action-planning scheme. It follows up the training with action-plan reviews, including more discussions with supervisors. It provides for continuous evaluation. Training must use a process approach to build and maintain performance improvement.

6 *Encourage supervisors to talk about the course with subordinates before the training starts.* All too often, employees attend training courses without ever discussing the whys and wherefores with their supervisors—the key people in the performance system. Supervisors are the source of most rewards and punishments. If supervisors are uninterested in the training, why should trainees care about it?

If, however, the supervisor shows genuine interest in the course's objectives, then the trainee will likely take the course seriously. Obviously, management needs to establish a policy to make this a viable strategy. Once again, it's up to you to show managers how critical the supervisory role is.

7 *Focus training on relatively few key concepts.* Information overload is a common trainer trap. As long as they have a captive audience, many trainers burden trainees with every piece of information they can think of. Trainees emerge from such courses with their heads swimming. When they return to the job, they can't begin to apply what they learned because they remember only random bits and pieces. Learning psychologists refer to the problem as retroactive interference, which simply means that new information gets in the way of old information. Retroactive interference is a big part of the reason why loading up a training course to make it "a good value" often produces a course of no value.

8 *Give them practice, practice and more practice.* The most important elements in instructional design are practice and feedback. Practice builds competence and confidence. When you limit the information in your training courses, you will free up time for lots of practice.

Don't send trainees back to the job until you're certain that they really *can do.* "Overlearning" is a good strategy. Remember that when trainees return to their jobs, they will be working under tremendous pressure. If they can't perform the new skill almost as second nature, they probably will go back to the old, comfortable way of doing things.

9 *Substitute job aids for remembering.* Trainers who come from educational backgrounds tend to overvalue memory. A lot of what we call education is little more than a series of memory tests: Those who remember well excel; those who remember poorly do not. In the working world, performance rarely depends heavily on memory. In most cases, a simple set of printed instructions causes little inconvenience to a worker, especially in the early stages of learning. Whenever feasible, do not clutter trainees' minds with information. Give them some well-designed job aids, teach them how to use them, and they will naturally memorize the information on the job aid in a short time.

10 *Train intact groups.* Whenever possible, include "intact" work groups in your training courses. Unless there is a support system back on the job, deterioration of new skills is very likely. We tend to forget that work is a group activity, not an individual one.

Another concept from physics, critical mass, comes into play here. A "threshold" number of employees should be trained in any one job or unit in order to provide the support necessary for new skills to be applied back on the job. The threshold number depends on many factors that vary from job to job and organization to organization. But the point is that if only a few people are doing it the new way—especially if they are not supervisors or group leaders—they probably will revert to doing it the old way before long.

11 *Get trainees to complete end-of-course action plans.* Action plans encourage trainees to make a commitment. Although this technique doesn't ensure that trainees will use what they learn, it does force them to put the commitment in writing. This is bound to increase the likelihood that new skills will be used on the job.

12 *Schedule a discussion with the trainee's boss.* I always tell trainees that the first item on their action plans should be an immediate meeting with their bosses. Without a firm commitment to a meeting, the course is unlikely to be discussed at all. Trainees should take the initiative to set up a post-course meeting if their supervisors don't.

13 *Publicize the action plan.* With the trainees' approval, send copies of the action plans to their supervisors and keep copies yourself. The action plan not only gives the boss valuable information about the trainee's future performance, it also helps explain the value of the training course to the boss. The action plan serves as a guide for the trainee and the supervisor during their discussions of the course and its follow-up activities. Retain a copy to use for your own follow-up and evaluation. That way, when you contact the trainee later, you'll be able to inquire about specific items on the action plan.

14 *Use "multiphase programming."* By breaking a course into phases you give trainees a chance to try out a new skill on the job before learning other skills. When they return for the next phase of training, let them discuss problems they encountered in applying the skills. This approach builds in a support system among trainees during the difficult early stages of learning and application.

Too often, trainers overload learners with a huge number of skills and then expect them to use those skills under high-pressure conditions. Multiphase programming allows trainees to learn a little at a time, apply the skills, gain confidence, and receive feedback and support before learning more.

15 *Follow-up after training.* Follow-up may be the most important key to successful training. Performance-improvement efforts cannot just end when the course ends; there must be continuing efforts to upgrade, motivate, support and monitor performance on the job. Trainers who simply wash their hands of trainees when the course is finished give them a clear message with a clear implication: If the trainer doesn't care, who does?

The trainer must be perceived to care about the objective of on-the-job performance, not just about the training. Follow-up after training provides much of the additional energy necessary to counteract entropy. Without

MISCONCEPTIONS THAT PRODUCE BAD TRAINING

BY DEAN R. SPITZER

Some people collect coins and stamps, some baseball cards, and others miscellaneous household effects. I collect misconceptions about training.

These flawed ideas often lie at the root of failed training efforts. I trace them to a variety of unrealistic attitudes toward the field of training, organizations and people in general. But whatever the causes, their effects can devastate the most well-intentioned training activities.

As trainers, we want to produce measurable, long-term performance improvements; at least, that should be the goal of all our training efforts. To reach that goal, we need to adjust our mistaken views about the role of training in organizational life. Here are some sample misconceptions from my collection:

- *Training is the same as education.* Education (or "development"), with its vague, long-term goals, may be important to an organization's success, but it is not *training*. Training must be immediately applicable on the job. And it must be verifiable in terms of short-range, on-the-job performance improvement.
- *Training is a program.* Conventional wisdom holds that training should be a program, a well-defined course that begins on one day and ends on another. Actually, training should be a process that continues long after the employee has returned to the job.
- *Training is a fixed overhead expense.* Managers who view training as fixed overhead do not require performance-based accountability. Training should be a profit center, an accountable source of verifiable performance improvements and cost savings.
- *Everybody needs training.* Certainly, everyone can benefit from learning more, but not everyone needs immediate, job-relevant training. If limited training resources are spread evenly throughout the organization, many individuals are superficially trained, often in areas that are not directly related to their jobs. We should concentrate our training efforts on potential high-impact areas that really will pay off.
- *Trainers should be responsible for training.* Trainers are staff employees who are charged with helping to produce performance improvement. It is, and must be, line managers and supervisors who are *responsible* for the training and development of their subordinates. Managers love to delegate training to the training department. We should be ready and willing to help, but not to relieve them of responsibility.
- *Employees want to learn new skills.* Trainers tend to believe—idealistically—that all humans want to learn as much as they possibly can. But why should employees want to try new skills if there are no incentives to improve job performance? A business is not a school; it is a place where people work for a living, mostly because they have to work. As Abraham Maslow showed us so graphically, self-actualization needs rarely come into play until all other, lower-level needs are satisfied.
- *Trainers are the best people to do the training.* Actually, trainers tend to be *low credibility* instructors. They are not perceived as experts in the job, they often are young and inexperienced, and they lack the job knowledge that comes from years on the firing line. The best instructors usually are "exemplary performers" who are currently doing the best work on the job.
- *Quality training should be attractive, impressive and fun.* Many trainers spend their time designing courses that will be impressive and enjoyable. This creates the wrong expectations. Quality training is not "flash and splash," it is sharing knowledge and skills that will be used on the job. Let's put the emphasis on content, not on logistics, printing and catering arrangements.
- *The best training departments run the most courses.* Actually, the reverse often is more likely to be true. The best training departments are the ones that spend most of their time analyzing performance problems, providing appropriate training and non-training interventions, and following up after training. Training departments that are overloaded with courses to run don't have time to do the things that make for success. Don't show me your course catalog, show me your results.
- *Participation in training should be voluntary.* Voluntary participation in training gives you trainees who want to be in your class, but it does not contribute much to achieving high impact. Impact comes from training those who *need* training, not necessarily those who *want* training. Also, self-selecting volunteers often create a haphazard collection of trainees who have little in common except their desire to attend the course.

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adequate follow-up, most training efforts are doomed to ultimate failure.

16 *Use the "exemplary performer" as your model.* Many theorists have pointed out the wisdom of finding and studying the people who do the job best—exemplary performers who manage to do outstanding work within the same system constraints as others who do mediocre work. Why does this individual excel? Usually because of greater personal motivation. You can't teach that kind of motivation, but you can teach the knowledge and techniques this person uses. Identify and debrief your outstanding employees, and use their performance as the basis for training others. A word of caution here: They're great as models, but it may not be the best use of their talents to use exemplary performers as trainers.

17 *Involve managers and supervisors in the design of training.* Without a doubt, one of the best ways to get managers and supervisors on your side is to involve them in training design. People are always more committed to things in which they have been personally involved. You might not use every one of their suggestions, but by all means include representatives of management on your planning teams.

18 *Create a training committee.* Another good way to rally managers behind the training effort is to organize a committee composed of key opinion leaders in your organization. Ask for its guidance on policy matters. You'll probably get some valuable feedback and more support than you have in the past.

19 *Gain visibility in your organization.* Publish a newsletter describing your most successful projects. Highlight members of the training staff, managers who have been most cooperative, and trainees who have excelled in training and on the job after training. Present your training philosophy and objectives. Provide an open forum for feedback. Toot your own horn.

20 *Make a real attempt to evaluate performance.* Most "happiness-index" evaluations are not worth the paper they consume. Training departments need to assess the impact of training on subsequent job performance. I have found it useful to identify specific indicators, often the same indicators that helped identify the performance problem that gave birth to the training course in the first place: high turnover, waste, low morale, excessive costs, etc. Although it may be difficult and time-consuming initially, it will pay off in the long run to "objectify" these performance indicators and develop mechanisms for monitoring them regularly.

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HOW MARKET RESEARCH TECHNIQUES CAN PAY OFF

These tools can help you specify outcomes, pinpoint organizational problems and develop better content

BY RON ZEMKE

The word *research* makes many trainers skittish. And for good reason. Many of us have walked away from some version of Dr. Opaque's *Social Science Research: 501* or Dr. Greek's *Basic Statistics: 315* with heads full of Root-Mean Squares, Time-Series Analyses, Between-Group-Variances—and justifiable distaste. These academic encounters of the worst kind have made us gun-shy of doing rigorous research on training problems, Generally, we either fly by the seat of our pants or farm out the job to professors Opaque and Greek or, if we're really unlucky, to the organization's personnel research department.

Enter a new-old kid

Many trainers, however, are discovering that they are extremely comfortable using a class of well-established consumer-research techniques most trainers have never encountered. Market researchers and advertising people have developed a substantial number of tools for finding out what people do in the marketplace. Trainers can use many of these techniques to obtain rich data for such tasks as specifying training outcomes, pinpointing organizational problems and developing training content.

For example, a sales training manager in a major West Coast bank utilized the services of a market-research firm to perform part of a sales training task analysis for calling officers. The researchers studied the buying habits and styles of the clients with whom the bank's calling officers worked. In addition, the firm studied preferred sales behavior and preferred call frequency. Needless to say, this information facilitated the sales training director's search for a new program and the development of a new call strategy.

Need more encouragement? A major automobile manufacturer recently hired a consumer-research specialist to pinpoint the differences between service operations with high and low customer complaint histories. The outcome of the study had predictable implications for service manager selection and training, and surprising ones for dealer and sales rep training, too.

Four for trainers

Probably the consumer-research techniques most useful to trainers are those referred to by James J. Hubbard and Brenda K. Miller, of Wheaton, IL-based Hubbard and Associates, as *primary interviewing techniques*, including Focus Discussions, Intercept Interviews, Personal Interviews, Telephone Interviews and Mail Interviews. Except for the intercept interview, all of these have direct usefulness for trainers.

Focus group discussion. Here, individuals are brought together with a group discussion moderator to discuss some specific aspect of their job, organizational life, or—when used with consumers— some aspect of satisfaction with the products or services delivered by the organization. Focus groups generally range in size from eight to twelve individuals. The moderator's job is to prompt discussion among the individuals in order to learn how the respondents really feel about various aspects of a particular subject. The moderator generally brings to this effort a discussion outline and a background in small group dynamics and good facilitation skills. The moderator's primary role is keeping the discussion restricted to the subject at hand, assuring that no one noisy individual dominates discussion and encouraging all to contribute from their experience. Focus group discussions can last from an hour to over two hours.

As you would expect, there are pluses and minuses for any research technique. On the plus side:

- Focus groups give you easy, fairly reliable access to the ideas and attitudes of a work group. Be they salespeople, secretaries or division managers, focus group participants tend to relax and interact well verbally.
- The group make-up can be carefully controlled and double-checked simply by having the participants introduce themselves and speak about their background for a few minutes.
- Video and audiotaping of the sessions make the extra dimensions of nonverbal behavior and vocal information available to the analyst. Groups rarely object to recording, and transcripts of the session are invaluable for recollection analysis and comparison purposes.
- Focus groups are especially useful for gathering input that can be turned into questionnaires for a quantitative study.

The minuses are pretty obvious:

- The results of a focus group study are *qualitative,* not *quantitative:* there's no way to tell how widespread the group's attitudes and skills are in the populations from which the groups were drawn. And, as Al Anderson, president of Anderson Research, Minneapolis, cautions, "Many times a client foregoes follow-up quantitative study because of the cost and delay. That can lead to over-emphasis of some relatively minor problem or idea."
- Considering the cost of getting interviewees together, focus groups are fairly expensive.
- Just getting representatives from some populations together can be a problem. One researcher, who was conducting a management skills study with district managers of an oil company, relates that one busy manager sent his secretary halfway across the

country to attend the focus group meeting for him. Though he certainly demonstrated his delegating skills, his creative solution for being in two places at once didn't add much to the research effort.

Personal Interview. This second interview research technique is the most familiar to trainers. Respondents are randomly selected from a carefully defined population, and interviews are conducted near the workplace. Personal, one-on-one interviews can be highly structured beforehand and, when well-planned, can be rather brief. The interpersonal skills of the interviewer are critically important in the personal interview.

On one hand, the interviewer must cover certain ground with every interviewee without seeming bored or giving an "I heard it before" impression. At the same time, the interviewer must "read" the interviewees well enough to know when an interviewee wants to relate something germane to the discussion that is confidential or controversial.

The personal interview has a number of pluses:

- If the interviewer and interviewee can establish a "safe" relationship, a lot of information can be shared in confidence and anonymity and within a short time.
- The interviewer can use rating scales, questionnaires and card-sorting techniques to shape the interview and to relax and stimulate the interviewee.
- If the interview is especially fruitful, the length can be adjusted without having to consider other participants.
- The interviewer can shift and change interview style and question types to meet the style and comfort needs of the interviewee.

There are, however, at least four drawbacks to the personal interview:

- Cost. The one-on-one interview is definitely the most expensive— and slowest—way to gather information.
- Because interviewees may doubt that the interview will be held in confidence—especially if a tape recorder is used— they may not answer the interviewer's questions candidly or fully.
- Often the people selected for interview purposes within an organization are chosen because of their verbal skills or a history of candor rather than because they are representative.
- It is difficult to control the one-on-one interview to the extent that the structured questions get answered. An interviewer might get carried away with some tangential lead in the interview, and the interviewee may need more time than the interview allows to consider one or more of the interview questions.

A common market-research technique that trainers could definitely use—especially for course evaluation purposes—is the...

Telephone Interview. Telephone calls are made to a random selection of the population—be they job encumbents, ex-trainees or consumers— and interviews are conducted, using a structured interview guide. The guides used range from sheets with open-ended questions to questionnaires with specific choices. The typical telephone interview lasts 10 to 15 minutes; about 20% of the people contacted by telephone will give the interviewer 20 to 25 minutes.

There are many pluses for telephone interviewing:

- This is the least expensive live interview one can conduct.
- Interviews can be monitored and evaluated. And, because fewer interviewers are necessary, there's less chance for interviewer bias.
- About 80 to 90% of those called agree to be interviewed.
- People tend to be more candid over the phone than face-to-face. Hubbard and Miller have found, for example, that 70 to 80% of those interviewed over the phone will divulge household income figures— a much higher percentage than other methods yield.

The minuses tend to be minor:

- Telephone interviews tend to be shorter than other kinds of interviews.
- There is no possibility of "show and tell" or for any of the "loosening-up" exercises possible with the face-to-face interview.
- The interviewer must work with a structured interview form that typically requires developmental time and pilot testing.
- Not everyone succeeds at telephone interviewing. Good interviewers must be skilled at "breaking the ice" with total strangers over the phone.

Mail surveys. These usually are conducted on a one-time-only basis with a random sample of the population. A self-administered questionnaire, which is generally shorter than other interview forms, is required. Incentives can be used to encourage a higher response rate.

Among the pluses are:

- Cost. The mail survey is the cheapest form of information gathering.
- Respondents can complete the questionnaires at their leisure and take more time to think through the questions. Return-mail answers often provide more detailed and accurate information.
- Because of the anonymity of mail interviews, respondents tend to be more frank in their responses, particularly on sensitive issues.
- A large staff isn't needed for administration.

But mail surveys have significant drawbacks.

- The most serious one is the non-response. No matter how many questionnaires come back, one always wonders how the missing people—the non-responders— differ from the responders. Some research indicates that "survey returners" tend to be better educated and more interested in the subject of the survey.
- Respondents tend to read through questionnaires before answering, thus possibly biasing the answer process.
- If the non-response rate is high, cost advantages tend to evaporate.
- Survey studies take a long time to complete since respondent turnaround time pretty much controls the completion date.
- Sometimes, as in the case of the substitute focus group attendee, the wrong person fills out the survey.
- It's difficult to design good surveys and questionnaires.
- Surveys require statistical treatment. If they aren't designed with that in mind, the results of the study cannot be interpreted accurately.

Limits and stuff

Obviously, no single consumer-research technique is appropriate in all situations. For instance, telephone surveys are ideal for post-training information but less so for climate and attitude sampling. And, of course, none of these techniques would suffice for doing a task-analysis study of a job like, say, typewriter repair. But when applied to the right kind of problem, consumer-research techniques can be a superb addition to the trainer's tool box.

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WHY THEY DON'T DO WHAT WE TRAIN THEM TO

When trainees aren't performing what they learned—perhaps it's time to add more elements that increase transfer of training

BY J. REGIS McNAMARA

As the issue of accountability becomes more important in human resources development, question of what training accom- hes becomes increasingly relevant. particular concern is the impact ning programs have on individuals k on the job. In other words, how h transfer of training or general- ion (terms used synonymously) took place? Transfer of training cts can be considered to occur n the relevant aspects of behavior red under one condition or in one ing carry over in some form to non- ning conditions or settings. Trans- occurs, then, when trainees do it you trained them to do, where when you hoped they would do it. system I believe can assist train- n developing programs with more sfer elements in them is based on Training, Resource, Assessment, rvention and Network System, or INS. A TRAINS analysis begins a thorough examination of all ents connected with the training rience.

ning component analysis

e impetus for most training en- ors develops from the assump- s and models used in constructing ining experience. To analyze this onent for transfer, the concep- underpinnings of the training rience should be identified and sed for their soundness in relation to achieving transfer objectives. mber of concerns related to this need be explored. The first tion to pose is whether the train- is derived from a *unimodal* or *multimodal* orientation. A management training program derived from behavior modification principles would be considered a unimodal system, whereas one that was jointly predicated on humanistic and behavioristic concepts is developed from a multimodal orientation. Unimodal systems are easier to deal with than those derived from a diversity of perspectives and viewpoints because of their greater theoretical integrity; also they usually have generated more extensive empirical evidence addressing the issue of external validity or generalization.

In unimodal systems, questions about what kind of discrepancies exist between the transfer procedures used to conduct a program and those implied by the theory are of particular concern.[1] An important associated issue is how discrepancies, when they occur, might influence the magnitude of desired transfer effects. For example, using a behaviorally based personalized system of instruction, more generalization in the use of concepts is achieved if the concepts are first defined, then elaborated on and finally worked through by learners using a concept formation program.[2] Failing to incorporate these elements into this type of instructional system may compromise generalization. For example, a program designed to enhance the counseling skills of trainees may be consistently derived theoretically. But its ability to change actual behavior in the counseling situation could be limited if the theory was developed to influence cognitive structures and attitudes of the counselee toward others.

Training is an eclectic field, where diverse orientations, philosophies and activities are accepted, and it is not unusual to encounter training programs that combine elements in ways that might seem, from a single perspective, unusual or perhaps even discordant. These multimodal systems pose vexing evaluation problems. When ideas from a social learning model, communication's theory and humanistic philosophy are tied together with the inspirational intuition of a program originator, an experiential tangle can be the end result. This is not to suggest that such a combination does not work from a participant's point of view, because it frequently does. It simply implies that the diverse orientations will contribute unevenly to the production of generalization effects. Whatever benefits might be evidenced from using procedures derived from one source probably will be compromised by adding less effective or counterproductive elements from another source. The synergism resulting from combining diverse theoretical orientations rarely enhances transfer effects, though the *chicken-soup, or the-more-ingredients-the-better, theory of training* asserts the opposite.

Resource component assessment

Social factors and the physical training environment both influence transfer. The characteristics of both participants and trainers are one of these elements. One critical question pertaining to trainers is how much visibility, contact and influence they currently have and potentially will have in the post-training environment. To the extent that trainers are isolated from the rest of the organization, their ability to extend the gains made during training to other relevant organizational settings is unlikely to occur. If this situation exists, then it may be necessary to recruit, on a short-term basis, surrogate trainers from those settings to which the participants will return. By virtue of their continued presence around participants before, during and after training, surrogates are likely to provide relevant social support for the newly acquired behavior in the appropriate organizational setting. Even if trainers are well integrated into other aspects of organizational functioning, a variety of trainers should be employed to increase transfer possibilities.

Personal investment and a feeling of some ownership of training content by significant participating figures in the transfer environment also contribute to successful generalization. When individuals with social and administrative influence participate

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When trainees aren't performing what they learned—perhaps it's time to add more elements that increase transfer of training

BY J. REGIS McNAMARA

As the issue of accountability becomes more important in human resources development, the question of what training accomplishes becomes increasingly relevant. Of particular concern is the impact training programs have on individuals back on the job. In other words, how much transfer of training or generalization (terms used synonymously here) took place? Transfer of training effects can be considered to occur when the relevant aspects of behavior altered under one condition or in one setting carry over in some form to nontraining conditions or settings. Transfer occurs, then, when trainees do what you trained them to do, where and when you hoped they would do it.

A system I believe can assist trainers in developing programs with more transfer elements in them is based on the Training, Resource, Assessment, Intervention and Network System, or TRAINS. A TRAINS analysis begins with a thorough examination of all elements connected with the training experience.

Training component analysis

The impetus for most training endeavors develops from the assumptions and models used in constructing a training experience. To analyze this component for transfer, the conceptual underpinnings of the training experience should be identified and assessed for their soundness in relation to achieving transfer objectives. A number of concerns related to this issue need be explored. The first question to pose is whether the training is derived from a *unimodal* or *multimodal* orientation. A management training program derived from behavior modification principles would be considered a unimodal system, whereas one that was jointly predicated on humanistic and behavioristic concepts is developed from a multimodal orientation. Unimodal systems are easier to deal with than those derived from a diversity of perspectives and viewpoints because of their greater theoretical integrity; also they usually have generated more extensive empirical evidence addressing the issue of external validity or generalization.

In unimodal systems, questions about what kind of discrepancies exist between the transfer procedures used to conduct a program and those implied by the theory are of particular concern.[1] An important associated issue is how discrepancies, when they occur, might influence the magnitude of desired transfer effects. For example, using a behaviorally based personalized system of instruction, more generalization in the use of concepts is achieved if the concepts are first defined, then elaborated on and finally worked through by learners using a concept formation program.[2] Failing to incorporate these elements into this type of instructional system may compromise generalization. For example, a program designed to enhance the counseling skills of trainees may be consistently derived theoretically. But its ability to change actual behavior in the counseling situation could be limited if the theory was developed to influence cognitive structures and attitudes of the counselee toward others.

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A TRAINER'S GLOSSARY: BEHAVIOR MODIFICATION

When Benjamin Franklin was a colonel of the Pennsylvania militia, he had a "training" problem. The soldiers weren't attending Sunday services. Rather than lay down the law or chastise the troops, Franklin turned over dispersement of the rum ration to the chaplin. Attendance was no longer a problem. When Franklin's parson began passing out the rum after Sunday services, he was practicing an art referred to variously as **positive reinforcement management, behavioral engineering, operant conditioning, behavior modification, contingency management,** or any of a dozen or so terms meant to describe the process of managing behavior through the systematic use of positive reinforcement.

Parents have always known that a behavior followed by certain consequences (sometimes incorrectly lumped together as "rewards") will continue to be exhibited until it is no longer reinforced. Grandma's law of "work first, then play" is as old as Adam.

What *is* new is the systematic and willful use of a number of "Grandma's laws," old and new, to control many aspects of behavior. The basic premise is that the consequences of a behavior shape the behavior. If the result is aversive, there is less likelihood that the behavior will be repeated; if the results of the behavior are favorable to the behaver, the likelihood of the behavior being repeated is increased. That may seem a complicated way to say good things increase behavior and bad things decrease behavior. But b'mod or operant conditioning isn't that simple. There are five consequences which can possibly follow any behavior. Each has a different effect on the possibility that the behavior will be repeated (see table).

There are some surprises in the table. For example, **punishment** doesn't have a predictable effect on behavior. This invariably is proved by research. Punishment is generally followed by emotional behavior, which neither increases nor decreases the chances that the target behavior will occur again. The only sure way to decrease a behavior is to follow it with an **extinction** procedure, i.e., by doing nothing. It seems so simple. Just pick the behavior you want to see promoted and go promote it. Not that easy. First, what is a reinforcer? Sure, rest for the weary, food for the hungry, activity for the bored, and liquid for the thirsty are all reinforcers, but they are also products of deprivation and we can't fool with **primary needs.**

Fortunately, **secondary reinforcers** are a possibility. When some neutral, non-reinforcing stimulus is repeatedly associated with a primary reinforcer, the formerly neutral stimulus takes on the ability to reinforce. E
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got this jerk trained. Every tim
the lever he serves up a mea
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CONSEQUENCE	CALLED	EFFECT ON POSSIBLE REOCCURRENCE OF TARGET BEHAVIOR
nothing	extinction	decrease in likelihood
something good occurs	positive reinforcement	increase in likelihood
something good withdrawn	punishment	unpredictable
something aversive occurs	punishment	unpredictable
something aversive withdrawn	negative reinforcement	increase

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other critical factor to assess is
her there is considerable hostile,
tive or unconstructive sentiment
ng the participants for any par-
r training experience. If there
ansfer will be minimal. If the
al mass of negative opinion is
eutralized or balanced by careful
ipant selection during training,
participants will either be un-
nced by the transfer program or
attempt to undermine it by poor
modeling and verbal innuendo.
aspect is particularly important
lerstand when the program in
ion deals with potentially emo-
or controversial subjects, such
ce relations, social skills training
ormance counseling.

ainers and participants are
together by the social climate
ed during training. A persistent
m that compromises transfer
s is the special emphasis placed
veloping social and emotional
nse patterns that are most
ve within the training program
[3] Too often, participants con-
o the demands of training, be-
it is functional to do so. Once
demands are removed, other
influence a person's response,
s work load, new organizational
ties and so on. Examination of
screpancy that exists between
cial climate created *during*
ng and that which exists in the
y work setting of the partici-
s important. Large discrepan-
tween the two social climates
ase the likelihood of transfer,
small discrepancies increase
ssibility of transfer effects.

ar training and transfer phys-
vironments are also important.
pects of the training environ-
should be considered— the
l space provided for training
he resources contained in the
g space. The more common and
stimuli that exist in the train-
d transfer environment, the
r the likelihood that gener-
n will occur. One way to ac-
sh this is by "vestibule train-
n-the-job problems or situa-
along with their physical
teristics are recreated in the
om.[4]

sment component analysis

ogram assessment can be di-
nto two types— process and outcome. Process-oriented assessments are structured to collect information on what happens to people undergoing a training experience. And outcome approaches focus on the changes (both positive and negative) that happen to the individual and/or organization as a result of training. Both types of assessment are frequently used to evaluate the success of a training effort. Neither of these assessment techniques to promote and better understand transfer effects is used often enough.

There are several issues associated with the selection and use of assessment methodology. A fundamental concern associated with drawing conclusions from assessment is whether the instruments or procedures chosen will reliably detect change back on the job. Since assessment for transfer will, by definition be conducted some time after training and in an environment different from that of training, the procedures used must demonstrate situational relevance and temporal stability. Relevance is established by identifying whether the measures used to assess the beliefs, behaviors or attitudes during training are likely to detect these same characteristics in the transfer setting. The selection of particular dependent measures has differential utility for establishing outcomes related to transfer effects.[5] For instance, both video recordings and direct observations of selling behavior may be made during training. But when these same procedures are used in the field, in the presence of customers, the nature of the selling situation is likely to change so dramatically that an accurate representation of transfer to the field situation could not be made.

In order to strengthen transfer, special assessment procedures must be used. For example, an assessment strategy that can be used for both process and outcome purposes, as well as to promote transfer effects, is a self-monitoring data collection and feedback system. By recording their own behavior each day, individuals are motivated to change and progress, thus, positive change can be maintained in the transfer environment. Keeping track, in a diary, of the number of times employees are praised for their accomplishments reminds the supervisor to use principles of positive reinforcement taught during training. It also illustrates how dispensing such reinforcement affects improvement.

When self-monitoring systems are occasionally supplemented by means of external surveillance systems (which can corroborate or extend the information gathered by self-monitoring), even more sustained maintenance can be expected. One way to accomplish this is by having the employees also keep track of the amount of praise they receive from the supervisor. Periodic comparisons can be made to determine the correspondence between the two sources. The use of more automatic devices, such as television monitors, personal telemeters and electrical or mechanical counters, would also serve the same function.

Finally, we should consider the following factors when using assessment to promote transfer. First, how reactive are the procedures with the characteristic being measured? That is, will the mere process of having the behavior measured produce a predictable change in it? Second, are the cues associated with the assessment in the transfer environment obvious enough to remind individuals about their behavior? And is the feedback from the assessment delivered at appropriate intervals and in a practical way? And, third, are consequences provided to groups or individuals for meeting or failing to sustain adequate performance standards in the transfer environment? This last issue relates to the establishment of performance standards in the transfer setting and the creation of a motivational system that allows individuals to meet these standards. To the extent that much variation in transfer behavior is permissable, individually determined goals and reinforcement systems are acceptable.

Intervention component analysis

The procedures and operations used during training to create generalization are critical to the transfer process. For instance, the diversity, variety and novelty of tasks, responses and problems presented during training assist transfer.[6] Providing an adequate number of informational stimuli, as well as teaching sufficiently varied responses to them, is important. An underused method for programming generalization is to do the training in a number of organizational settings. For example, subgroups can be simultaneously trained in different environments with appropriate sequencing between them until training is completed; or the whole group can serially pass through training presentations in different settings. Both these approaches increase the logistical problems of scheduling and staffing, but they increase the transfer effects by weakening the association between the behavior learned and the environment it was learned in.

Although immediate reinforcement for correct responding is usually the operation of choice to facilitate a learner acquiring a new response, intermittent and delayed reinforcement ultimately assure better generalization. Thus during the latter part of training, both feedback and reinforcement should be delayed over time and varied in their amount so that the learner will maintain a reasonable level of persistence. This thinning of reinforcement and feedback to small amounts and at lengthy or unpredictable intervals approximates the usual state of affairs in most organizational environments.

The use of cues and consequences to bring forth generalized responses and then maintain them in the transfer environment is important, too. Written and verbal instructions form the principal basis for most cueing (or signaling of what comes next) that exists in organizations. The development of a commitment to perform in the post-training environment can be fostered through the use of contingency contracts,[7] while the use of policy control procedures[8] can assure that the postraining behavior may be maintained through administrative means.

Consequences are those events that happen to a person after a behavior is performed. Positive consequences or reinforcement increases the likelihood that the behavior would be exhibited in the future; negative consequences or punishment decreases this likelihood. Those consequences that are useful during training— a passing grade in an examination or a certificate of attendance— may be entirely worthless in maintaining the behavior in the transfer setting. Therefore, it's important to identify payoffs in the transfer setting that are known to motivate employees effectively and to make these consequences contingent on the transfer behavior.

The transfer effectiveness of the procedures used to promote facts, skills and concepts presented during training also must be established. Generalization of factual material involves the ability to recall pertinent information at a later time in different surroundings. An effective way to enhance recall during training is to provide the participant with a set of retrieval cues and plans for the material to be recalled. A mnemonic scheme based on a memorized list of words associated with information to be recalled would be appropriate here. The use of live or videotape models to simulate the behavior as it will occur in the transfer setting is essential for skill carry-over. For concept generalization, an approach combining guided and discovery learning seems applicable. Using these combined procedures, participants are initially taught about the task; later on, they are allowed, through trial and error, to find out the answers for themselves.

Network component analysis

An examination of the arrangement and sequencing among the components in TRAINS is the focus in this part of the system. The adequacy of the linkages established between each component should be explored, with special attention being given to how each component complements and strengthens the influence of the other. The identification and removal of incompatible and counterproductive arrangements is of particular concern. The network analysis puts into perspective the entire transfer effort of the program and determines the effort's consistency and integrity. The network analysis finally attempts to balance transfer needs against other program and organizationally related factors, such as initial program learning, feasibility and cost/benefit to the organization.

Conclusion

Our knowledge of how to create transfer and generalization effects from training have reached a stage where formal recommendations for the use of such a technology is warranted.[9] The TRAINS system examines factors that have been identified as important in training programs. How widespread and effective the use of TRAINS becomes, however, will depend on two factors. First is the extent to which the ideas contained in TRAINS are incorporated into training programs. The second relates to the support this system receives from research that demonstrates its incremental benefit over other transfer systems and models.

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PUT MORE COMMON SENSE IN CURRICULUM DEVELOPMENT

Check yourself against this four-point plan

BY MARY GARDNER

Training situations often become as much ends in themselves as means to personal or profes- fulfillment for participants. It is ite easy to lose sight of "What's it all ?" when engaged in meeting the quirements of crisis-provoked train- andard training offerings (such orientation of new workers) or even articular topical areas, which are pecially appealing to use as individ- trainers. This can happen despite e use of a variety of techniques and tegies relevant for adult educa- specifically in the human serv- The problem is that such theoret- or technical elements in rriculum development can become mechanized.

To guard against this possibility, eveloped a kind of "guide" for self that helps me focus on my ll purpose. Four concepts or ndards, which together form an ay" for any subject matter, have ved to be reliable predictors of suc- when one or more of them is sing, I know that my approach is ow incomplete. I have found they do not interfere with any etical approach and, in fact, e to enhance every style of pre- ion or educational experience. haps you, too, will benefit by con- ng the practicality of such a de. Here are the four concepts which mine is based.

mething new. Participants should go away from any training ence having learned *something new*, whether that be some cognitive material or skill development or attitudinal/value perspective. Too often, trainers—perhaps in an effort to facilitate the sharing of participant experiences—have not prepared themselves sufficiently in the substantive or content areas of the learning experience. I don't buy the "just tell me the topic and I can lead the training experience" attitude. The educator is still responsible for seeing that opportunities for new learnings are available. This may mean simply helping to structure conceptually, in some more systematic framework, the myriad sharings and learnings that may have taken place among the participants; but effective conceptual structuring requires being conversant with the subject material.

Of course, the educator may be charged with the actual delivery of a lecture or demonstration or illustration. In this case, he or she obviously must have some previous knowledge of the experiential and interest level of participants so they at least have the opportunity to avail themselves of the "something new."

2 Something to integrate. Current and developing theories and technologies in adult education posit that the adult learner "takes in" and retains material in proportion to the extent such material can be applied or "integrated" with his or her own life experience. Such life experience can include conceptual frameworks, thought patterns, knowledge of certain topics, acquired skills, observations, experiential learnings, realities of daily life and so on.

Sometimes it is necessary for the educator to draw the participants' attention to their own previous experience with which the current discussed subject matter can be integrated. While this can be done merely by citing examples of possible previous experiences, I have found it particularly effective to help participants acknowledge their own experience early in the learning session. Because this occurs before the new material or subject matter is discussed at all, participants can actually become more aware of and conversant about their own experience, without being biased by the leader's point of view.

The point is that, with or without assistance from the educator, the adult learner should have the opportunity to integrate or blend the particular subject matter with his or her own experience and reality. The same holds whether the participant accepts or refutes the learned material; the leader is simply responsible for making the opportunity available.

3 Something to affirm oneself. A positive self-regard and affirmation for one's own present and future self is absolutely essential to the learning process. This is as true for the adult as it is for the child. If we don't feel good about ourselves, we will experience more difficulty in mastering the subject at hand. The following interior monologue clearly illustrates how this works: "Only I can learn for myself. You can give me the opportunity, and, in the process, you can convey positive regard for me. But the root of my ultimate self-reaching and self-determination in this regard is my positive acceptance of myself and my potential."

The educator must find ways—through media announcements, climate-setting activities, genuine statements, experiential exercises, expectations of performance, evaluation strategies, or whatever—to build an atmosphere that promotes self-acceptance. I believe it is the perceived absence of this principle in the eyes of direct-care-worker trainees that explains why they frequently seem disinterested in additional advanced learning experiences in the human services. Either we don't take the time or our attitudes don't permit us to build a learning climate that fosters, *above all else*, positive self-regard. And its absence tends to diminish the trainees' ability to absorb and ultimately use the material presented.

This doesn't mean, of course, that the participant shouldn't recognize

To guarantee employees' participation in the process, recruit key middle- and upper-level managers to serve on a curriculum committee. This committee oversees the design portion of the project—it reviews, critiques and approves all recommendations. The committee also identifies subject-matter experts who help analyze performance and construct the curriculum.

Generally, the curriculum committee meets twice during the project: once to review the project plan and select the group-process participants, and again at the end of the project to critique the results and set priorities for training activities.

The subject-matter experts (SMEs) the project committee selects will provide information for performance analysis, identify job knowledge and skill requirements, critique the existing curriculum (if any), and build the new curriculum. SMEs should be expert in the work itself, able to describe that work articulately, and representative of the departments or locations that ultimately will use the training.

SMEs are critical to the group-process method: They provide the basic information on work performance and the skills necessary to support that performance. They should be prepared to commit four to six days to attending meetings; no outside work is required of group members.

If you intend to address the training needs of new employees, you'll need a third group composed of recent hires, preferably with six to 12 months of experience. Because new employees lack experience and perspective, however, it's a good idea to ask the expert group to review the performance-analysis data they produce.

STEP 3
ANALYZE WORK PERFORMANCE

During a two-day meeting, the expert group systematically analyzes the work. The goal of this meeting is to come up with a performance analysis (see Fig. 1) that defines these elements.

- A mission statement for the job or function.
- A list of *major* accomplishments or responsibilities for the job or function.
- A list of the major "outputs" or results produced by each accomplishment or responsibility.
- A list of the major tasks that must be performed to achieve each result.
- Measures by which the results are evaluated (e.g., accuracy, timeliness, etc.).
- Typical and/or critical deficiencies in the results.
- Perceived causes of those deficiencies (e.g., lack of knowledge or feedback).

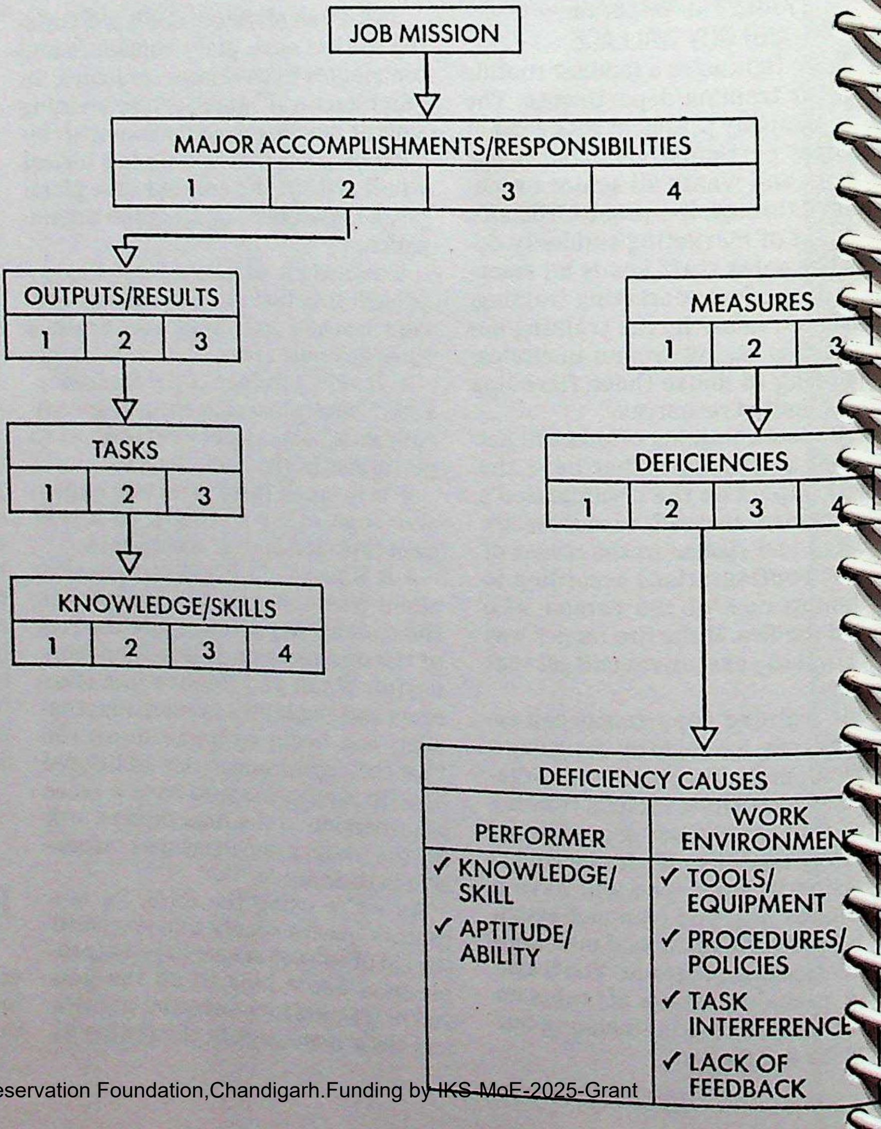
The 'fire spotter's' position tends to determine the resources allocated to fighting the fire.

Performance analysis establishes *effective work performance* as the criterion for all training activities. It becomes the foundation for task-oriented training modules because it defines the major accomplishments, outputs and tasks of the job.

Analyzing deficiencies and their causes allows you to pinpoint performance problems for which training a likely solution (e.g., workers lack certain skills), as opposed to n training problems (e.g., substandard equipment, poor performance-appraisal system, etc.). This also is a terrific opportunity for teaching people that training is not a panacea for solving all performance problems.

The expert group's next task is to develop knowledge/skill matrices. good way to start is by showing the group a list of categories into which various skills might fall. With engineering groups, for example, we have used categories such as introduction/background information, policies/procedures, tools/resources, product technologies, process technologies, technical engineering skills, generic professional skills, management skills and theories/concepts. The categories you use are not critical, but they should stimulate the group's thinking about relevant knowledge and skills.

FIGURE 1
Elements of Performance Analysis



e specific knowledge and skills in h category are generated by trac- ack through the performance lysis. Pay particular attention to encies that seem to call for train- solutions. When the group is satis- hat all major knowledge and skill s have been captured in at least of the categories, each item is -referenced to the major accom- shments or responsibilities identi- n the performance analysis. The ult is a knowledge/skill martix like ne in Figure 2.

To guarantee mployee involvement, ecruit key mangers to serve on the curriculum-project committee.

his cross-referencing of knowledge kills to accomplishments serves ee purposes.

ties particular knowledge or lls directly to the work itself.

It provides specific direction for who ultimately will develop a ining program to teach the skill. er than using a generic program oral presentations, for example, aining developer, knowing from beginning that presentation skills eeded only in certain aspects of ob, can build (or buy) a program teaches the specific types of pres- ion skills the work requires.

e knowledge/skill matrices also help when it comes to developing curriculum modules and a strategy for delivering the training. If some specific knowledge or skill is used in all of a job's major accomplishments, it may be appropriate to develop a single course to cover all its applications on the job. Where a skill is relevant to only one or two accomplishments, however, it might be more efficient to include it in a module built around that particular goal.

Once the expert group has developed the performance analysis and knowledge/skill matrices, the new-employee group can meet, if necessary, to review the materials and suggest additions based on their needs.

STEP 4
DESIGN THE CURRICULUM

The expert group reconvenes for a two- or three-day meeting to review the work of the new-employee group and to design the curriculum. At this point, you probably will want to add members of the training staff to the group. Their role is to contribute information on existing training programs, potential or existing delivery systems, and forecasts about when the training can be delivered.

First, the group must decide upon the general structure of the curriculum architecture. One useful outline that can be adapted to a wide variety of jobs and functions begins with orientation and progresses to increasingly specific skill/knowledge modules.

The top level in this four-level structure contains training courses designed to introduce employees to the company, its divisions, product lines, procedures, policies, etc. The modules at the third level provide overviews of the major accomplishments, responsibilities and tasks identified in the performance analysis. Second-level courses teach the steps or procedures involved in completing each of the tasks. Finally, first-level modules support the entire structure by providing instruction on basic or advanced knowledge and skills. These knowledge/skill programs are linked to the task and task-overview programs according to the group's knowledge/skill matrices.

An overall plan and a place to begin are more important than perfection.

Once the general structure has been set, the group must organize all the training content into modules and identify logical sequences. Creating the modules is a demanding task that requires the group to juggle many variables simultaneously. Variables related to training delivery—considerations such as the number and location of trainees, optimal timing of the training, the existing budget and staff—are likely to be the trickiest problems.

If you are designing a curriculum architecture for a target population that is scattered across remote locations, cannot be taken away from the job for significant periods of time, and is not accustomed to on-the-job coaching, what might you do? One solution would be a curriculum architecture containing short, mentor-delivered modules. Another might be a structure that relies heavily on computer-based training.

Once the group has pounded out a modular curriculum architecture, it identifies the subgroups who will need each module, the potential impact of each module on job performance and the time necessary to complete each module. The group is now prepared to recommend priorities for module development.

Risks vs. benefits

Certain risks are involved in using the group-process method for developing a curriculum design. Without a leader who has a clear understanding

FIGURE 2
Sample Portion of Design Engineering Knowledge/Skill Matrix

	Major Accomplishments			
nowledge/Skill	Product Definition Developed	Project Plan Completed	Prototype Built and Tested	Pilot Run and Production Supported
econd order effects	✓		✓	✓
rounding and nielding	✓		✓	✓
uman factors ngineering	✓	✓	✓	✓
odeling and simulation			✓	
esting and measurement theory d practice			✓	✓

of what data must be generated, the method probably will not succeed. And even with a knowledgeable leader, group process can run into trouble if there are serious disagreements within the group that can't be resolved.

For example, if group members in a software-development function disagree on whether a particular new computer language will become the standard in their work, they may not be able to produce a curriculum that will be widely accepted. But keep in mind that this type of problem is not unique to the group-process method. If clients can't agree on the nature of the work, it will be extremely difficult to design a satisfactory curriculum regardless of the method you use.

The speed with which a curriculum can be built using the group-process method is one of its key benefits. But even this has a drawback: If the performance analysis is—or is perceived to be—superficial, you've got a problem. When the comprehensiveness of the analysis is a key concern, more group or individual interviews are certainly an option. For a training department with no overall plan for course development, however, a timely and relatively inexpensive curriculum blueprint that identifies 80% of the target population's training needs may be worth much more than a delayed, expensive design that covers 98% of all needs. An overall plan that gives you a place to begin is more important than a perfect one that never gets off the drawing board.

Regardless of the method used to produce a curriculum architecture, the design itself provides a valuable, broad-based survey of an organization's training needs. It is a "client-driven data base" that can help estimate the resources needed to develop and deliver training. And that means you can approach senior management with a budget request based on solid data rather than a laundry list of training needs.

One more benefit: Once potential clients have been involved in a curriculum-design project, they are liable to line up behind the training department in support of its budget requests. These are now *their* needs, and they want to see them met.

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THE CASE FOR CORPORATE COLLEGES

If 'sheep-dip' training is so bad, why are some companies able to use it so well to develop their managers?

BY JACK GORDON

The corporate management academy. The centralized, "building block" approach to ing managers. The core curricu- long-lived courses that most or managers at particular levels of an ization are encouraged or re- ed to attend. With this whole con- the human resources develop- (HRD) community has a love/ relationship that seems almost

ve? Let a company open a new, million-dollar training center, listen to the cheers. The invest- is hailed as proof of top man- ent's sincere commitment to ing. And in the HRD world, g is held in higher regard than management commitment.

e? Ask professional trainers h companies they most admire way they handle management ing. You'll hear about IBM, Gen- lectric, Xerox, McDonald's—all izations with campus-like train- enters. And all of those centers t least in part, to teach stan- ized courses.

e? How often have you heard dardized courses derided as p-dip"? How many times have eard the phrase, "Don't mea- he value of your training by the your course catalog"? In how ways, from how many experts, have you received the message that individual employees or departments or business units are all unique entities with unique training needs that are not served by generic training programs? How often have you been warned that the course you teach at corporate headquarters in Chicago will just waste the time of people who will return to the Kansas City plant, where *things don't really work like that?*

Hate? Maybe this sounds familiar: Never design or conduct a training program unless it's aimed at a specific, pressing problem in a specific area of the organization, and a needs analysis has convinced you that the problem is caused by some discrete group of employees who lack some specific skills or knowledge. Never use training to try to fix anybody or anything that isn't visibly, demonstrably broken.

A company that establishes and supports an ongoing management curriculum draws the envy of the rest of the training world. But after bowing their heads respectfully, a lot of people in the field go back to talking about HRD as if the only useful and legitimate training function is one that cruises through the corporate waters like a shark on an eternal seek-and-destroy mission for bleeding fish. It chews up bite-sized performance problems and excretes solutions—preferably solutions whose impacts are measurable in dollars and cents. Then it swims on, in search of the next wounded tuna, the next department with a performance hemorrhage.

This ambivalence in our attitudes toward the fixed-curriculum approach to training is real. But it is also largely a straw man. Most directors of corporate management academies are happy to agree that the cruising shark is an essential feature of an effective training effort. They just don't think it's the only feature. To say, "A thick course catalog does not effective training make," is not the same as to say, "Don't have a course catalog." You aren't designing a core curriculum to handle all the training you're going to do—just the training you want *every* manager to get.

"The premise that everybody needs to get something unique out of an educational experience is probably valid," says John Murphy, director of executive and management education at GTE's management development center in Norwalk, CT. "But that doesn't invalidate offering them the same educational experience. To say they need unique outcomes and applications is not to say they need unique input. If [the curriculum] is relevant to real business issues, people can grab hold of the elephant in different places and get unique things out of it."

Sheep dip? Defenders of the curriculum approach are not necessarily intimidated by the term. "Sheep dip has its place in life," says J. Robert Carleton, former manager of executive development at Southland Corp. (7-Eleven stores) and now a consultant with the Vanguard Group of San Francisco and London. "You dip sheep when they need to be dipped—when there are particular diseases you're trying to avoid or specific innoculations everybody needs."

The problem sheep-dip training runs into, Carleton continues, is that "you can start to think it does things it doesn't." Again, a core curriculum is not a *substitute* for the roving shark that seeks out training needs indigenous to particular areas in the organization. And indeed, a management academy can jump the track and drift into irrelevance for any number of reasons.

But at the same time, advocates say, a standard curriculum can do things that the find-it-and-fix-it approach can't. Different companies design their core courses to achieve different goals, but three major objectives tend to emerge: 1) Build generic management skills. 2) Build skills and knowledge uniquely applicable to managing in this particular organization. 3) Forge and maintain a cohesive corporate culture.

Even if a company has all three goals in mind—and many don't—the distinctions among them are by no means clear-cut. Where does a company-specific management skill leave off and a generic (universally effective) management skill begin? Where is the line between delivering information about how the company works, and indoctrinating people into a certain value system or culture? In practice, the same course can cover all three bases. In fact, some argue that it must. Says Kenneth Hansen, manager of education and training for Xerox Corp., "Value systems are interpreted through the policies and procedures you have in place, and policies are carried out through the skills you teach people. You can't separate those things. It's critical to have them locked together."

Nevertheless, if you want to compare and contrast some different approaches to designing a management academy, those three goals offer a useful frame of reference.

Generic skills

Most companies structure their core curricula in building-block style. As people advance up the career ladder, from first-level supervisor to middle management to the executive ranks, they are urged or required to take certain standard courses that prepare them for their new responsibilities.

In some organizations these courses are heavily customized and loaded with cultural indoctrination. Virtually everything they teach refers specifically to "how we do things *here*." At IBM, for example, every entry-level manager who joins the company is sent to its Armonk, NY, training center for a one-week course. Everyone who reaches the midmanagement level goes back for another one-week course. Newly promoted executives go to Armonk for two weeks. These core courses, representing only a fraction of the formal training a typical IBM manager receives, concentrate entirely on "people skills," as opposed to functional responsibilities such as marketing, engineering or finance. But they don't teach you (as it were) "how to supervise people effectively" or "how good executives deal with subordinates and peers" in general. They teach you how supervisors and middle managers and executives *at IBM* are expected to supervise and deal with people.

None of this is to say, however, that IBM believes there's no such thing as people-management skills that are more or less universally effective. Elements of various packaged training programs are folded into some of the company's courses, says corporate education director Jack Bowsher. It's just that you'd be hard pressed to recognize them. All generic material has been thoroughly IBMed.

In most other companies, skill-building courses tend to take a more universal approach to developing managers as they move up the ladder. At The Hartford Insurance Group, a core management curriculum was launched just two years ago at the company's Hamilton Heights Conference Center in West Hartford, CT. "We started with the assumption that there are certain skills associated with different levels of management in virtually any organization," says Charles Wolfe, director of management development. "A number of people have gone out and done massive studies that categorize the skills that come into play when you become a supervisor, a middle manager, an executive." For instance, he points out, researchers keep finding that at the midmanagement level, artful interaction with peers is vital. At the executive level, you have to "understand the external environment and be able to respond internally.

"Nobody has to spend millions of dollars to find that out," Wolfe says. "It's all been well spelled out in the literature. . . . We built an approach you could basically use in any company."

The Hartford's core curriculum includes courses recommended—not mandated—for all employees at four levels: pre-supervisor (that is, supervisory candidates), supervisor, manager and executive. Much of the material refers specifically to The Hartford's policies and operations, but to a large degree, the skill-building elements in these programs a deliberately generic, using packaged material from various training ve dors.

In other words, says Wolfe, "Our core curriculum is not just abo doing things The Hartford way." At the same time, he acknowledges t the next challenge, now that the basic curriculum is up and running, is integrate parts of it with the peculiar needs of various company divisions. The training department is now working with The Hartford's commercial insurance division, for instance, "to overlay their particular career ladder on our programs." L Wolfe does not intend to retreat from the curriculum's basic structure. "Ten years from now," he says, "there will be more specific courses for each division. But there will still be core p grams for the whole company. The core stuff may change, but it will there and it will be pretty generic."

In 1984, First Bank System launched three parallel building-block curricula: one for management, one for consumer banking and o for commercial banking. All are centrally operated from the 15th floor the bank's Minneapolis headquarters building, although trainees are n necessarily sent to Minneapolis to attend all courses. Sometimes trainers deliver the programs in branch offices spread over a six-state region.

"When we designed the [management] curriculum, we had no clear and immediate presenting problems," says Susan Zemke, former director of the management academy and currently manager of train consulting services for First Bank. (She is now, in effect, the cruis shark of the company's training function, working on problems in individual divisions and units.) "There was no huge hue and cry about specific needs, no major turnover problems or anything. But we knew that we had excellent managers, medium m agers and poor managers. We started by asking, 'What would excelle managers have to be able to do?' and we built from there."

The result is a core curriculum t offers 12 to 15 courses to people at each of three levels: supervisor, m dle management and senior management. At every level, the courses grouped in clusters under the headings, "Managing Personal Effectiv ness," "Managing People," "Mana in "Results" and "Leadership." What changes as people move up the career ladder is the scope and complexity of the building-block courses. At the supervisory level, for instance, "Managing People" translates into courses on how to hire, manage, delegate to and evaluate the performance of nonexempt employees. At the senior management level, modules teach the same sorts of skills, but with regard to managing and developing other managers.

That basic strategy—keep the same themes but broaden the scope as people move up the ladder—is fairly common to building-block curricula, although variations in structure and focus are endless. For example, General Electric Co.'s Crotonville Management Development Institute in Ossining, NY, operates on six levels. All newly hired college graduates, be they salespeople, accountants or chemists, go to Crotonville for a three-day orientation course within six months of being hired. After three years with the company, they go back for a week. Every first-time manager at GE goes to Crotonville for six days. Then there are the "advanced functional curricula" for senior people in functions such as marketing, engineering and finance. Executive programs kick in for people under consideration for one of the top 400 jobs in the company. Finally, "officers workshops" are for incumbents in the top 100 or so jobs at GE.

According to James Baughman, manager of corporate management development, all six programs are organized along three "dimensions." He calls them personal stretch (raising your own standard of knowledge and expertise), business stretch (where you "wrestle with the realities of GE's competitive situation") and leadership stretch. What changes from level to level is the scope and focus of the training. A lower-level leadership course, for instance, might deal with "how to get your own act together with maybe a three-person team." In a top-level course, Baughman says, "you might be talking about leading a $6 billion business with 25,000 employees."

Managing here

Baughman estimates that the Crotonville courses represent only about 20 percent of the core training a typical GE manager receives. Fourteen major businesses reside under GE's umbrella, and each operates its own building-block curriculum. "Crotonville's job is to integrate," he says. "Eighty percent of the job is to differentiate. . . . We're so diverse, it would be foolish to have a central sales training function, for instance. Sales in aircraft engines is different from sales at NBC."

In GE's "personal stretch" courses—and even in IBM's heavily customized skill-building programs—a manager who had been through some other company's academy might well recognize many of the basic principles and skills being taught. When it comes to matters like how to give effective performance feedback to a subordinate, for instance, nobody completely reinvents the wheel. As The Hartford's Wolfe points out, many tried-and-true people-management techniques tend to be universal, whether you customize your programs or not.

But in some corporate academies, people-management skills and basic orientation to company policies make up only part of the core curricula. Other parts have to do with specific issues currently facing the company. In many of GE's "business stretch" courses, an outsider would be much more at sea. "We have people in there working on real problems in real time," Baughman says. Sometimes with their actual coworkers, sometimes in heterogenous groups, GE managers in some Crotonville courses wrestle with actual business issues and make real recommendations about how to handle them. "This is the element GE includes that 90 percent of the [management academies] I've seen don't," Baughman says.

Another academy that *does* is GTE's. John Murphy explains that quality improvement has been tagged by top management as the No. 1 goal of all of GTE's 35 "strategic business units." Accordingly, the Norwalk management development center is running a quality course for the senior managers of all 35 units. Four units at a time, in groups of about 40 people, these executives gather in Norwalk for three days. About half the time is spent discussing quality-improvement strategies. The other half is spent developing implementation plans for each business unit.

"They leave with an actual strategic plan and roughed-out action plans," Murphy says. And 30 days after they get back to their offices, they're expected to turn in final quality plans to corporate headquarters. Those plans will represent their actual goals for the next two years.

"The reality is that the most productive management training you can do is to have real teams working on real issues at the time they're actually dealing with those issues," Murphy says.

That GTE quality course, like some of General Electric's "business stretch" programs, obviously is "standardized" only in the sense that everyone goes in with the same general goal in mind. When real teams wrestle with real problems, most of the course "content" will vary from group to group. But the fact that Murphy views this as the ultimate type of management training does not mean he sees no value in more generic skill-building programs. GTE's building-block management curriculum, which operates in conjunction with two parallel curricula, one in finance and another in sales and marketing, uses elements from packaged programs in some supervisory modules.

Even in its core building-block programs, however, GTE is not necessarily trying to shape a specific type of manager. "We've made a conscious transition away from that idea over the past five years," Murphy says. When the company opened its $35 million management center in 1982, the initial strategy was indeed to come up with a model of the perfect manager and try to build him through training. "But we gave up on that," he says.

"Nobody really knows what a perfect manager is. Trying to build perfect managers through some model may be a waste of time—and maybe it's something you wouldn't want to do even if you could." So now, he says, "Most of our core courses are heavily strategy-driven. In the director-level course, the question is, 'What's your role in driving the business' strategy?' In the executive course, the content is determined each year by the participants. We don't use [these courses] primarily for skill building."

In some companies, the core curriculum focuses entirely on teaching people the ins and outs of *this partic-*

ular business. Little or no attention is devoted to people-management skills. At Dunkin' Donuts of America's national training center in Braintree, MA, the closest thing in the core curriculum to a people-skills program is a course for district sales managers on how to run an effective meeting—the Dunkin' Donuts way. No, at Braintree, the point is to teach donut-shop franchise owners—and a lot of corporate-level employees—all about how Dunkin' Donuts operates.

"We do a program for all new franchise owners," says Robert Harloe, corporate director of training and development. "Now there's a sheep-dip course if ever there was one; everybody gets exactly the same information. But you cannot operate the business unless you know the nuts and bolts of how it works."

Also, the company feels its corporate marketing people, real estate specialists and even internal auditors cannot do their jobs effectively—their jobs being to support the franchise owner—unless they understand the owner's world and how it works. Therefore, the support troops are "dipped" right along with the owners in the basics of lease arrangements, legal considerations and various arcane donut concepts such as "yield and usage."

Forge a culture

Most management-academy directors agree that a centralized core curriculum can be helpful in building and maintaining a homogenous culture or value system in an organization—a standard way of doing things. There is considerable disagreement, however, as to how the academy should approach this role. Is culture—or cultural change—something you identify and teach directly? Or does a culture evolve from the needs of the business and the training you do to support those needs?

IBM is famous for addressing cultural issues explicitly: This is what IBM believes, this is how we do things here, and this is the only way we do things here. Personnel policies—the performance evaluation system, for instance—are consistent throughout the entire mammoth organization.

General Electric also takes the head-on approach, but in a somewhat different way. Once noted for a culture nearly as homogenous as IBM's, GE has changed considerably since chairman John F. Welch Jr. took the helm in 1981 and embarked on an ambitious campaign of acquisitions, swallowing such disparate companies as RCA and Kidder, Peabody & Co.

"We're not trying to build a single, IBM-like culture," says GE's Baughman. "We have 14 very different types of businesses, and we want their cultures to be different. But we do want them all to share some common standards, values, purposes and behaviors . . . . It's like, you don't want to try to turn Texas into Rhode Island, but they're both part of the United States."

GE has developed an "evolving" 18-page value statement that trainees at Crotonville study and talk about directly. "We have very explicit, heated discussions of what we want to be, how we want to behave and what we value," Baughman says.

Xerox, too, addresses cultural issues right out loud in its corporate-wide building-block programs. The company runs a five-level curriculum, starting with "pre-management" programs and ending with courses for top corporate officers. A major purpose of the entire curriculum, says Ken Hansen, is to "instill our values and expectations of managers across all units and divisions—to institutionalize values across the corporation."

But the decision to use training to institutionalize a culture was not automatic, Hansen says. "When we put the building blocks in place, we discussed whether we *wanted* a corporate-wide value system. Our operating companies do business in the same environment to a great extent. That's why a common value system made sense for us."

GTE's Murphy agrees that a core curriculum can be an engine for cultural change ("It's at least a secondary objective of every course we've got"), and some of the company's programs used to hit the subject head-on. But now Murphy is taking a different tack. "I think that establishing a company culture or a corporate 'religion' as an avowed purpose of training is a mistake in most places. It doesn't fit us, and it doesn't fit most companies. At IBM and maybe GE, it might make sense; IBM has been very clear about what its management philosophy is for 35 years or whatever. But unless you *are* IBM, trying to ram a culture down people's throats doesn't work."

A better approach for most companies, Murphy argues, is to focus training on major strategic business goals—quality, productivity, customer service—and "let a culture evolve out of how you meet them."

By addressing the need for cultural change explicitly, he says, "We tended to deal with the issues in too generic and broad a way. Everybody at GTE understands that the telephone industry has been deregulated, but so what? It wasn't clear enough what we wanted managers to do about it—the payoff for changing wasn't clear." After going through GTE's quality-improvement program, on the other hand, managers go back to work and "realize that in order to implement specific quality strategies, they've got to change the way the organization is managed. Well, guess what: That's what we meant all along by cultural change."

As a result of the quality program, says Murphy, "We have new compensation plans, new management structures and new communication strategies already out there happening. We've achieved more than we did in five years of having [guest experts] come in and talk about culture change."

Robert Harloe of Dunkin' Donuts has no patience at all with the notion of spending classroom time on explicit discussions of the company culture. "It seems ludicrous to me that you go get some training program and that's going to establish or change your value system. We have a strong culture, but it's just a result of the way we manage. 'Dunkin' Donuts 101' wouldn't make a culture or change it.

"In the old days," Harloe continues, "our training center was called Dunkin' Donuts University. That smacks of a certain kind of lunacy to me. . . . A lot of our franchisees quit their jobs and took out second mortgages on their homes in order to go into this business. They need to know how to run the shop. They don't want to hear about the philosophy of donuts."

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MANAGEMENT EDUCATION: THE WHEAT AND THE CHAFF

What separates the best management training functions from the also-rans?

BY DENNIS C. KINLAW
AND DONNA R. CHRISTENSEN

n one company, the management ducation group is powerful, influential and prestigious. It enjoys holehearted support of the organization's mowers and shakers. When aks, people listen.

In the next company, the function arely tolerated. It survives by luck, tronage, by virtue of a hazy nse that an organization is sup- to do something about developing its management talent—well, t?—and that it therefore is supsed to keep some trainers on the yroll, however grudgingly.

“’re lucky,” says training direc- Bob of his well-connected depart- “because our CEO is a strong liever in management develop-

ometimes this is literally and y true. Bob's group may be quite ssful in political terms, at least while, despite the fact that nei- nor his training staff are in any outstanding. They're just lucky.

fact is, however, that all manent education functions are not d equal. Some are superb, some pt. In the long run, one will get support than the next not beits CEO happens to be a Renaise Man, not because it spends ime “selling top management e value of training,” but simply because it is more effective in performing its role: It does a better job of training and developing its organization's managers, therefore it gets more support, therefore it's able to do its job still more effectively.

What distinguishes a good management education function from a poor one? How can you make your group more effective? In the course of our work with training departments—some good, some not so good—we have come to believe that at least part of the answer lies in avoiding certain pitfalls and developing certain aspirations.

Pitfalls

A lot of training directors seem to live by three rules. We've seen some die by them, too. We think they're dangerous traps.

1. *Populate the management education group with the best classroom trainers.* True, sometimes the best groups do have a staff of superior trainers, but often they do not. The danger of loading the function with great trainers is that great trainers *love* to train. And they can develop a myopic interest in training as the *only* strategy for developing managers rather than as one strategy in an integrated and systematic approach.

In one organization we know, there is a man affectionately known as “supertrainer.” Supertrainer lives for groups. He is always finding ways to be in front of groups. And he is very, very good with groups. But supertrainer's impact on the total management education function has been largely negative. He avoids his own management responsibilities within the group, and his colleagues often have to clean up his administrative debris.

Management education groups that are too heavily dominated by trainers also can develop very skewed program emphases. In another organization, the entire thrust of the function is on self-development and personal growth. Over the years, the department has become dominated by trainers who are interested in (and good at) teaching stress management, creative problem solving, interpersonal style, wellness and so on. In this company, the concept of management education as an instrument for increasing the *organization's* effectiveness has never developed.

2. *Run as many programs as you possibly can.* Management training programs have a remarkable ability to breed and multiply all by themselves. Run a lot of programs, and before you know it you're running still more and more programs (whether the company needs them or not) and hiring more and more people to administer them.

A few years ago, at a national training conference, one of the authors ran into a conversation that went something like this:

“So you're in management training?”

“Yes, I'm a trainer in our corporate management education office.”

“What kind of training do you do?”

“Well, I don't actually conduct training. I don't do much up-front stuff.”

“Oh, you're more involved in planning and design.”

“No, we mostly use consultants for those jobs.”

“I guess I'm not sure I understand what you do.”

“I'm a program manager. I manage programs.”

“So you take an idea and develop it into a program.”

“Not really. I schedule programs, arrange for participants and training rooms, that sort of thing.”

“Oh.”

What this person was describing was a far cry from what we think of as a program manager. Managing a program means being deeply involved in all the decisions that affect its development. Our new acquaintance was, in fact, a program administrator—someone who schedules and provides logistical support for training courses.

Over the years, we have worked with training groups in which program administration has become the primary function. Their major goal each year is to try to expand their course catalogs. As they are successful, they hire more program administrators.

More is not better in management education. And functions populated by program administrators are highly unlikely to be particularly effective. They tend to develop a marketing mentality. They're on the lookout for quick-fix panaceas and can end up responding to the passing fancies of individual managers rather than helping the organization respond to substantive issues of profit, productivity and quality.

In the best management education groups, we rarely find that program administration is a full-time function of the professional staff. Instead, it is generally a shared, rotating responsibility handled by secretaries and clerks who use standardized checkoff lists. The professionals are deeply involved in their programs and they are *all* program managers—in the full meaning of that phrase. They are continuously in some phase of planning, modifying, delivering or evaluating a program. Invariably, their concern—and often their obsession—lies in creating the *best* possible training, never the most.

3. *Never buy training; always build your own.* Whether we look at a great management training department or an inept one, our observation has been that programs developed in-house are no more likely to be "good" (successful, effective, well-designed, well-targeted) than those purchased off-the-shelf.

What we have found is that some groups become so preoccupied with putting their own imprint on programs and develop such enormous pride of authorship that they lose their objectivity in evaluating the program's merits. That can happen in *good* training departments. In bad ones you run into a more blatant problem: The fact that a department insists on designing its own programs does not guarantee that it has the technical skills or the experience to do so. And indeed, many "customized, in-house" training programs are little more than patchworks of bits and pieces drawn from (or worse, pirated from) published, off-the-shelf courses.

In-house designs are often encouraged on the assumption that they will be perceived by trainees as more relevant than off-the-shelf programs. One illustration of just how questionable this assumption is comes from a two-week residential program for managers of a large engineering company. The bulk of the course was designed in-house. But the two sessions participants consistently value the most are off-the-shelf programs on time management and interpersonal communication.

Aspirations

What about the positive side? Here are six goals and practices we consistently find among the superior management education groups we encounter.

1. *Demand success and insist on being held accountable.* One of the curious conversations we keep having with struggling trainers—those in Rodney Dangerfield-style departments that "get no respect"—leaves us with the impression that programs fail because of the participants. Trainees "resisted the learning," they had forgotten how to learn, they were distracted, they were "your typical engineers," they couldn't grasp the basic concepts, they were afraid to experiment, they couldn't handle the feedback, etc., etc., etc.

The best training groups we know are quite certain why some of their programs fail. They fail because of faulty preparation, faulty design or faulty implementation. They do not fail because of faulty trainees, period.

Designing and delivering training means more than following a rational model to analyze needs, set objectives, build content, determine the right sequence for events and so on. Successful programs result from painstaking attention to every single variable that contributes directly or indirectly to that success. You have to take into account the history of management training in the company. You have to build motivational support throughout the organization. You have to worry about room design and creature comforts and special diets and all the other mind-boggling, backbreaking minutiae that add up to a smooth program.

People in the best training departments have the closest sense of identity with their programs. They are always chatting with participants during breaks to get feedback. We have seen such groups rearrange a training room a dozen times until it was just right. We've seen executive-level training directors fill water pitchers and stuff notebooks. Nothing is too insignificant, no task is beneath anyone's dignity, and getting everything done to perfection is everyone's responsibility.

The first time we present a problem to a training staff member of an organization we're working with—say we want to change the room temperature or get another easel or have some material reproduced—we can tell immediately what kind of group it is. The weak ones tell us why we have the problem: "We've just lost a staff member," "The copier is broken," etc. The strong ones tell us when and how the problem will be resolved.

The best training groups are fanatical about redundancy. They have backups for backups. We conduct an ongoing interpersonal communication program for middle managers in an East Coast firm. In one segment of the program, trainees conduct a series of videotaping and replay exercises. Our video equipment has never failed. But despite that 100% success rate, the management education group responsible for the program provides three backup video sets and a technician who is on immediate call throughout the program.

In the best training groups, accountability means being responsible for every single detail. It means providing as many redundant systems as the program requires. The best groups do these things; the others don't.

2. *Stay visibly in touch with the whole organization.* Staff members of the best management education functions can be hard to track down. The last place to look for them is in their offices. They are more likely to be found in some line manager's office, or visiting the shop of a supervisor, or giving a briefing on some new program, or calling on the company's customers.

The best functions practice the strategy of "presence." Their members are everywhere. You'll find them in other people's staff meetings more often than their own. You'll find them in all kinds of problem-solving groups—groups on productivity, groups on the quality of work life, groups on career patterns, and more.

One striking characteristic of the best training departments is that the members rarely refer questions about the company to someone else. They know what the company is doing. They know its structure, its plans and its problems.

In poorly run training groups, members spend a lot of time talking to one another. What they know about the company comes through their in-baskets. Most of their programs are defensive and reactive. They tend to focus on the first level of supervision, not because that's where training needs are greatest but because the trainers are uneasy with the company's executives. They do not see themselves as people of significant influence. They don't practice a strategy of "presence." They don't know their companies. They are largely unseen. And being unseen, they become unused and largely vestigial.

3. *Make the management education function do more than educate managers.* In the best groups, the training thrust of a given program often is only the tip of the iceberg. Learning is, of course, the primary intended outcome of educational programs. But high-performing groups keep finding ways to expand the use and impact of their courses. You will find these groups using training programs to build company-wide support for the whole enterprise of management development, to assess future training needs, to conduct research on management development, to link managers from all levels and functions in the organization and to solve real problems in real work groups.

The best training departments think of management education as an instrument for both individual and organizational change. Each program element is linked to the others. And all elements are part of an explicit strategy to improve the organization's performance.

A good example of a program clearly conceived to do more than educate (i.e., one intended to change the organization) has recently been undertaken by an East Coast telephone company. The management education staff now designs its programs to be conducted for work teams of first- and second-level supervisors. Because the managers that work together are trained together, each program supports team development and real-time problem solving—two major building blocks of organization development.

In weak training groups, programs have few if any ties with one another. And none of them are focused on changing the organization. Courses are offered as long as they remain popular. Managers attend them by choice, and individual managers control whatever on-the-job application is made of whatever learning occurs.

We recently reviewed the program offerings of what we consider a poorly run management education group. It runs about 30 different courses a year. Tracking these programs over a five-year period, we found an average dropout rate of 50%. Less than 10% of the programs offered five years ago are offered today.

4. *Model first, teach second.* The best management training functions are well managed themselves. They know what good management practices are because they model them. They know what it takes to be a productive team because they work at it themselves. There is nothing in their programs that they cannot support from their own experience. They know that participative practices work because they use them. They know that open and confrontive communication works because that is how they communicate. They can talk in specific and concrete terms about the need for creative and informal reinforcement for performance because for them it's a fact of life.

In ineffective training groups you find glaring discrepancies between their own management practices and those touted in their programs. We once worked with a company's training department to design and deliver some workshops for managers on preparing performance standards and conducting performance appraisals. One goal of the workshop was to help the trainees use the appraisal system as a management tool by completing their performance plans and appraisals in a timely way. In the process of designing the workshop, we discovered that managers in the training department were anywhere from six months to a year late in completing their current appraisals and that none of them had developed plans with their subordinates at the beginning of the appraisal cycle.

The best education groups project clear and unambiguous messages to every manager in the company: You want to know what quality and productivity look like, look at us. You want to know what good management practices are, look at ours. You want to know what a fully functioning team is like, talk to our team members. You want to know the value of any of our programs, test your concerns with us because we have tested the program on ourselves.

5. *Live through the successes of the managers you serve.* The best management education groups thrive on feedback about how their programs have led to increased production, quality and profit. They revel in stories of managers who attribute some personal success to one of their courses.

The best-run groups design application into their programs. They try hard to ensure that everything they offer is testable within the programs themselves. They are driven by a sense of urgency to make things happen, to make a difference. Their programs are never simple "data dumps" about company policies and practices. Their sessions never consist of merely descriptive presentations on motivation or team building or management style or whatever. They are committed to finding ways to improve management effectiveness; they are not committed to running more and more programs. They approach management education from a series of tested assumptions about what managers must know. They see themselves as direct influences on managers' performance and success.

6. *Strive for the highest levels of interpersonal skills.* A few years back we were standing with a colleague at the wrap-up of a program he had delivered to some 600 managers of a West Coast aerospace company. One of the company vice presidents congratulated our friend on his work. "What makes you good," he said, "is that you listen. You really wanted to find out what we needed to do, and you did."

One serious barrier to good listening and effective problem solving is the tendency to reduce what managers say they need to a convenient set of labels that allow you to run a convenient set of programs. How often have your so-called "needs assessments" turned into quickie exercises for "proving" that managers need exactly what you already "knew" they needed, or excuses for running programs you already knew how to deliver?

In the best management development functions, staff members have excellent communication and problem-solving skills. They are experts at "developing" raw information with other people.

The best-run management education groups we have seen are captive to a vision of influence and company-wide impact. They don't see themselves primarily as suppliers of educational experiences. They see themselves as key players in an ongoing process of organizational innovation and improved performance.

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BEHAVIOR MODELING: THE 'MONKEY SEE, MONKEY DO' PRINCIPLE

The learning by imitation concept is deceptively simple. But countless training programs still don't use it

BY RON ZEMKE

Monkey A sees Monkey B dig up a red root and eat it. Monkey B smacks his lips, jumps bout excitedly, begins digging again. nkey A "gets the picture," does ome digging of his own, finds a red t, eats it, likes it, and digs for more. imple as it may seem, this scenario tures the essentials of an emerging pproach to the development of train-g. This new approach, based on the rinciples of social-learning theory, is own as behavior modeling.

avior modeling and social-earning theory

Few trainers have more than a gue familiarity with behavior deling and its parent, social-arning theory. Part of that unfamil-rity has to do with origins. Social-arning theory is a by-product of in-tigations by Albert Bandura, mes Aronfreed, and others into the elopment of moral behavior in ildren. The specific question they stigated was: "If people tend to have in ways that lead to satisfac- in any situation, why do they en appear to forego rewards in order ehave in ways that are socially ac-ptable, even in private?" The learn- model they evolved to answer this estion — social-learning theory phasizes two simple mechanisms: *ditioning* and the *observation of els.*

onditioning, a la Bandura, is essen-y Skinner's reinforcement-of-avior concept but with a strong hasis on interpersonal attention, approval and affection as powerful reinforcers. As children, we learn to repeat behavior that gains parental approval, and we learn to avoid actions that bring withdrawal of affection and/or punishment and disapproval. The approval and disapproval of others remain powerful rewards and punishments throughout our lives.

The social-learning approach recognizes the importance of internal events, such as thoughts and memories, on the control of our behavior but insists that all behavior is at least indirectly controlled by external cues. As we become adults, we learn to reward and punish ourselves "internally" in imitation of previously encountered "external" reward and punishment. Once we've been burned by a hot stove, chances are slim that we'll touch one again, regardless of "social" pressures.

Modeling or observational learning is the way we learn from others' experiences. It takes place in two steps: acquisition and performance. In the first step, we see others act, and we *acquire* a mental picture of the act and its consequences. After the mental image is acquired, we *perform* or try out the act ourselves. This is, of course, where conditioning principles come into play. If we find the consequences of imitating the model rewarding, we're likely to act that way again.

Obviously, you and I don't imitate and try out every behavior we see others engaged in. In fact, adults seem to apply quite a few restrictions to whom and what they will parrot. We are most likely to try out a new behavior if we see someone prestigious, powerful and competent doing it. (How many of us, for instance, dusted off our old tennis racket and ambled onto the court because a significant role model — some personal idol or strong influence — encouraged us through example?)

But our expectations and experiences with reward and punishment in similar situations also mediate the chances that we'll try the modeled behavior. A five-foot-five, 35-year-old male, watching Bill Walton play a magnificant game of basketball, may not be encouraged by the example to play a little one-on-one. But a five-foot-five, 15-year-old female might be.

A growing number of trainers are learning that the social-learning-theory approach leads to a radically different framework for designing training, one that is particularly useful to those who train others to do complex motor-skill tasks and those who train others in interpersonal communication tasks. The use of modeling in the technical-training context has long been recognized. Anyone who has tried to write or even read repair instructions for anything more complex than a rubber band appreciates modeling and learning by imitation. In technical training, the score has always been: talk about it = 0; see diagrams of it = 10; watch someone do it = 1,000.

The big news now is that interpersonal skills, such as those needed to sell or conduct effective performance reviews, can be effectively taught and learned using modeling and social reinforcement. Trainers at IBM, General Electric, AT&T, Levitz Furniture, and others are finding that supervisory, sales, and customer-relations skills are learned faster and more effectively when taught from a modeling base.

Bandura suggests that the social-learning theory is a successful training design tool because it mirrors critical features of the real world in the training experience. In fact, Dr. Bandura bluntly downgrades the efficiency of learning from textbooks and lectures, and from word descriptions of things learnable from direct example.

> The marked discrepancy between textbook and social reality is largely attributable to the fact that certain critical conditions present in natural situations are rarely, if ever, reproduced in laboratory studies of learning. In laboratory investigations, experimenters arrange comparatively benign environments in which errors do not create fatal consequences for the organism. By contrast, natural environments are loaded with potentially lethal consequences for those unfortunate enough to perform hazardous errors. For this reason, it would be exceedingly injudicious to rely on differential

reinforcement of trial-and-error performances in teaching children to swim, adolescents to drive automobiles, medical students to conduct surgical operations, or adults to develop complex occupational and social competencies.

There are several reasons why modeling influences are heavily favored in promoting everyday learning. Under circumstances in which mistakes are costly or dangerous, skillful performances can be established without needless errors by providing competent models who demonstrate the required activities. Some complex behaviors can be produced solely through the influence of models. If children had no opportunity to hear speech, it would be virtually impossible to teach them the linguistic skills that constitute a language. When desired forms of behavior can be conveyed only by social cues, modeling is an indispensible aspect of learning. Even in instances where it is possible to establish new response patterns through other means, the process of acquisition can be considerably shortened by providing appropriate models.*

Dr. William C. Byham, president of Development Dimensions International, a Pittsburgh, PA-based training company that uses behavior modeling in its program designs, suggests, "Modeling is the way we've all learned from day one. Our whole developmental history is one of modeling the behavior of others. Look, I talk to a lot of successful managers and quiz them about their success. To a person, they claim that the most important experience in their career was working for an exceptional manager at some time — usually early — in their career. They seem to be saying they had a manager who was a good model and mentor. Unfortunately, that's an experience most of us won't have. And that's why I'm so high on giving people good models to learn from instead of textbooks and lectures."

In short, then, social-learning theory and research strongly suggest that, when conditions are right, a trainee can learn rapidly and effectively from exposure to a model performing the desired behavior.

Applying modeling and social learning to training

The first interpersonal-skills training using behavior-modeling techniques in industry was conducted in 1970 at General Electric by Mel Sorcher. The objective of this first course was to reduce the turnover of hard-core employees by helping them adapt to and cope with a job in industry. Both hard-core employees and their first-line supervisors were trained in taking and giving constructive criticism, asking for and giving help, and establishing mutual trust and respect. The actual training was light on human-relations theory and attitude messages and long on visual examples— films of people *doing* good interpersonal relating— and role play. Basically, the training was exceptionally successful.

Six months after the original training, 72% of the 39 hard-core employees who had been trained and who worked for supervisors who had been trained remained on the job. Only 28% of the 25 hard-core employees who had not been trained and who worked for untrained supervisors did not leave. More important, Goldstein and Sorcher synthesized the important elements of the modeling-training approach, and it has been used widely in the development of interpersonal skills ever since.

Question: So what's the big deal? Don't we, more or less, use modeling in all our training? Most of us show movies — that sounds like modeling —and most of us give live demonstrations. That, too, sounds like modeling. And lots of us use practice and role playing, and that sounds like social reinforcement. So why all the hubbub?

For starters, simply exposing trainees to film and video images of people doing things isn't modeling. A recent stopwatch study of 15 commercial training films revealed that, out of 420 minutes of film, the largest block of time (235 minutes or 56%) was devoted to explaining the skills. Twenty-two percent or 92 minutes were titles and transitions, 13% or 55 minutes showed people doing the skill *incorrectly,* and only nine percent or 38 minutes showed people doing the skill correctly or modeling the behavior. That is an average of 2.6 minutes of correct-skill demonstration per film. Producers of training films would not be surprised at these numbers since they conceptualize their job as dramatizing and communicating an idea rather than providing a source of skill models.

The moral is that simply putting your message on film doesn't qualify the product as a source of behavior modeling experience. Even showing trainees a film or videotape composed solely of examples of people doing the behavior or demonstrating the skill correctly isn't a learning shoe-in. By analogy, you and I can go to a tennis tournament, watch Connors and Evert play perfect tennis and not learn anything new about the game. *Unless* we attend with the conscious intent of "going to school" on Conner's footwork or Evert's backhand, we won't come away with any new backhand or footwork models.

In training based on modeling and social learning, care is given to facilitating three processes in the trainees:

- Attention — making sure the trainees attend to the pertinent aspects of the behavior being modeled;
- Retention — helping the trainees remember the original observation points in the form;
- Reinforcement and motivation —using practice and positive reinforcement to translate observational learning into skilled performance.

Development Dimensions' Byham suggests that these three processes are promoted by adhering to a specific sequence of events in the training:

1. *Overview.* The instructor discusses the objective and importance of the skill module.
2. *Critical steps.* The instructor describes the specific behavior or critical steps of the activity to be learned.
3. *Positive model.* A film or videotape shows an individual effectively utilizing the skill.
4. *Critique of the film.* The instructor and participants discuss the things done correctly in the film, with particular emphasis on how the model utilized the critical steps.
5. *Skill practice.* Trainees practice the skills in pairs, with one trainee acting the supervisor, salesperson or whatever and the second acting the employee, buyer and so forth. At least one other trainee observes the practice, using a prepared guide.
6. *Skill practice feedback.* After the practice session, the trainee receives feedback from observers and the instructor that emphasizes things done correctly. Where the behavior could have been more effective, alternative positive behaviors are suggested.
7. *Transfer.* Participants write out, practice, and receive feedback on situations they will face back on the job.

Byham also passes along the following tips and tricks for those who contemplate building a program around modeling concepts.

- Do a good needs analysis. Solving the wrong problem is *still* the trainer's number-one pitfall.
- Determine the specific situations where the new behavior is expected to manifest itself.
- Determine the minimum critical steps of the activity or skill to be mastered; don't complicate matters by listing too many critical steps.
- Spend up to 50% of the training time on the trainees on-job problems. (Development Dimensions courses typically devote 10 minutes to viewing

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*Albert Bandura, *Psychological Modeling* (New York: Lieber-Atherton, Inc., 1971).

the filmed model in a three-hour training sequence.)

- Keep the feedback sessions positive. The goal is to create a series of success experiences for the trainees.
- Develop the training group into a mutual support group.
- Don't expect a one-shot training program to yield a big behavior change. Work on one skill at a time over a period of weeks. Give trainees time and space to try out the new behaviors and come back for consultation with the rest of the group and the instructor.

Research on the effectiveness of behavior modeling in clinical and school settings is persuasive. Most assertiveness training is done through modeling, and has an impressive composite track record. But how effective is the approach in our world, the normal adult learning context? There is an equally impressive accumulation of studies that say the approach is effective in business and industry.

We have already mentioned Sorcher's work and the book based on his and Goldstein's successes. Robert E. Burnaska, also of GE, reports that a course developed to improve the interpersonal skills of the managers of professional employees was equally successful. A one-month follow-up comparison of 62 trained and 62 untrained middle managers showed that trained managers were better at *performance problem discussion, work assignment discussion,* and *giving recognition to an average employee* than were the untrained managers. In addition, a five-month follow-up found trained managers even better than they were at the one-month follow-up.

At AT&T, Joseph L. Moses and Richard J. Ritchie developed a behavior - modeling - oriented supervisory-relationships training program following the Goldstein and Sorcher model and evaluated the results, using an assessment-center approach. A team of specially trained individuals observed and evaluated 90 trained and 93 untrained first-level supervisors performing a variety of simulation exercises. Two months after the program, both groups were given cases of excessive absence, an alleged discrimination complaint, and a case of suspected theft. In all simulated situations, the trained group utilized "appropriate skills" and handled the situations significantly better than did the untrained group.

Preston E. Smith of IBM office products division reports that modeling training of *meeting effectiveness skills, discussing opinions survey results,* and *customer complaint handling* has paid off handsomely for his organization. Trained managers were rated higher on employee opinion surveys after training than before. In addition, customer-satisfaction ratings and sales-quota results were higher for branches managed by trained managers.

Lest we seem about to leap too quickly onto the behavior-modeling bandwagon, let's review three *facts* about the technique. First, the behavior-modeling approach comes from a learning model — social-learning theory — that has an impressive set of credentials. Second, a number of trainers are finding that the application of modeling principles is further reducing their dependence on the "spray and pray" approach to training. Third, good, solid evaluations are verifying the effectiveness.

But, as the folks at "Ma Bell" remind us, "The system is the solution." And no new training program or technique can overcome bad products, poor market positioning, or a management team that fights change. With this in mind, we should avoid setting expectations for behavior modeling that it can't fulfill. But we also should be glad we have an innovation, a new tool, that helps us perform better professionally. Who knows what will happen if we begin to model the professionalism we profess.

Reprinted from TRAINING, June 1978

WHAT YOUR TRAINEES CAN LEARN BY SIMPLY WATCHING OTHERS

Behavior modeling or imitation learning was a virtually unresearched and unknown topic prior to the 1941 publication of *Social Learning and Imitation* by Miller and Dollard. Their studies lead them to view imitation learning as a special form of the behavioral conditioning process. Essentially, the trainer must provide a sample of the behavior, the learner must respond in a way that matches the sample, and the imitation must be positively reinforced. In Dollard's and Miller's view, the "model" simply informs the learner where to go or how to behave for reinforcement. The learner does not acquire new, previously unexhibited behavior from the model. Though much of Miller's and Dollard's interpretation of results and theorizing has been questioned recently, they deserve credit for priming the pump, for beginning to research the question, "How and what do people learn simply by watching others?"

Groundbreaking and impressive modeling research has been conducted by Dr. Albert Bandura of Stanford University. In a typical experiment, Bandura, Ross and Ross showed nursery-school children a motion picture of an adult displaying "aggressive behavior" toward a large, inflatable rubber clown — the kind that bounces back for more because of a bottom full of sand. Boys and girls who watched the film behaved aggressively toward the clown themselves, closely mimicking the adult in the film. They lifted and threw, kicked and hit, and beat the clown with a hammer exactly as the adult had. Bandura has repeatedly found that most children will, with little or no prodding, thus imitate the novel behavior of a model.

In addition to establishing that modeling does occur, Bandura has investigated the ways in which it can be increased or decreased. He has found, for example, that children are more likely to imitate the behavior of a model they see rewarded than one they see punished. In one experiment, three groups of children watched films of a model who yelled at and punched a Bobo doll. In the film one group saw, the model was punished by an authority for punching the doll; in the film a second group saw, the model was praised for his aggressive behavior; in the film the third group saw, the model received neither praise nor punishment. When put into a situation similar to that of the model, the children who had seen him praised were much more likely to imitate him than those who had seen him punished. Bandura hypothesized that the children identified with the model and experienced reward or punishment vicariously as they watched the film. Therefore, when given a chance to act as the model had, they tended to behave as if they themselves (instead of the model) had earlier been praised or punished for hitting the doll.

Bandura's approach to understanding the modeling phenomenon is more complex and cognitively oriented than Dollard's and Miller's. To Bandura, models influence learning in an information-transmitting fashion. The observer acquires a symbolic representation of the modeled activities rather than a group of stimulus-response associations. Because there are cognitive or mental, as well as behavioral, components to modeling, Bandura suggests that there are four processes governing the modeling phenomenon: *attention, retention, reproduction,* and *reinforcement/motivation.*

The attention process

The principle here is that a person cannot learn much by observation if he or she does not attend to, or recognize, the essential features of the model's behavior. The learner must be sensitized to look for the things we want them to learn or they will learn something else — or nothing at all. Research suggests there are the following natural factors which shape the attention patterns of learners:

- *Similarity of model and learner.* The people with whom one regularly associates influence the types of behavior one will repeatedly observe and learn thoroughly. Opportunities for learning aggressive behavior are most prevalent for children of the urban poor than for offspring of the rural Quaker.
- *Functional value.* Behavior which has an intuitive value for the learner in the learner's environment is more likely to be attended to. Subway-map reading doesn't have a high functional value to a Los Angelino.
- *Interpersonal attraction.* Models who possess interesting and winsome qualities are sought out, whereas those without such characteristics tend to be ignored or rejected, even though they may excel in other ways.
- *Media attractiveness.* Models presented in televised form are so effective in capturing attention that viewers learn the depicted behavior regardless of the presence or absence of incentives for learning.

Retention processes

If one is to reproduce a model's behavior when the latter is no longer present to serve as a guide, the response patterns must be represented in memory in symbolic form.

- *Mental images.* There is an almost automatic mental imaging function, but for practical use these "mind pictures" should be associated with common symbols, such as words. As Plato suggested, a bowl may be only a poor example of the concept bowl, but the concept name bowl invariably pulls forth an image of a specific bowl one has had experience with.
- *Verbal coding.* Observers who code modeled behavior into words, concise labels, or vivid imagery learn and retain the behavior better than those who simply observe or are mentally preoccupied with other matters while watching the performance of others. Consciously counting Mark Spitz's strokes per lap will help a swimmer retain and retrieve a mental image of Spitz's swimming style.
- *Rehearsal.* People who mentally rehearse or actually perform modeled patterns of behavior are less likely to forget them. For example, mumbling your "opening lines" over and over to yourself makes them automatic.

Motoric reproduction processes

To actually *do* the behavior, the learner must put together a given set of responses according to the modeled patterns. The amount of the model which can be exhibited depends on acquisition of component skills.

- *Parts must equal whole.* A learner could have all the parts but not succeed with the whole. A young child might watch and be able to exhibit all the components of driving a car but still run the family Hupmobile through the garage wall.
- *Skill level.* Even if all components are learned, can be identified and talked about, performance of the whole will be poor until all the components are practiced and fitted together in a whole. A would-be tennis player can learn a lot by watching others play, talking about it and banging balls against the house. *But,* until one goes on the court and hits with another person, honing and fine tuning to the level of the model can't take place.

Reinforcement/motivation

A person can acquire, retain and possess the capabilities for skillful execution of modeled behavior, but the learning rarely will be activated if negatively sanctioned.

- *Positive incentive.* When positive incentives are provided, observational learning, which has been previously unexpressed, is promptly translated into action. Reinforcement influences not only the demonstration of already learned behavior, but it can affect the level of observational learning by influencing attending, coding and rehearsal phases.
- *Anticipation of reinforcement.* If the learner sees the model reinforced positively or avoiding punishment, learning is enhanced.
- *Familiarity with subskills.* If the learner has all the subskills and also has names or a coding system for them, seemingly complex skills can be modeled verbally — a factor most technical-manual writers rely upon heavily.
- *Multiple models.* The more models the learner is exposed to, the less likely he or she is to learn only one way of behaving. Learners exposed to three or four models exhibit behavior that is an innovative mix of all of the models seen. This would seem especially important for learning interpersonal skills that are personality dependent, such as selling or interviewing.
- *Outcome for the model.* How the model is treated influences both the probability of the learner learning the behavior and the learner's attitude toward the model and the behavior the model exhibited. This concept has been especially useful in helping people de-learn phobias.

During the last decade, there has been copious research on modeling applications. And at least some should interest the training and development professional.

- Problem-solving strategies—both linear and creative — seem to be enhanced by a combination of process rules and extensive modeling of the processes.
- Rule following and positive attitude toward procedures and rules seem to be enhanced through discussion and viewing of filmed vignettes of people successfully following rules and procedures.
- Interviewing skills can be quickly and effectively learned by watching a videotape of a model conducting an effective interview.
- When watching a model of supervisory skills, trainees also tend to learn and assimilate the leadership *style* of the model.
- Self-disclosure in a closed group increases when the facilitator models self-disclosure and makes a high number of self-disclosing statements.
- Assertive behavior can be effectively learned watching a videotape of a low-assertive person becoming assertive with the help of an assertiveness trainer.
- Complex motor skills can be learned by watching a film of a correctly performing model *or* a film of someone learning to perform the motor skill.
- Tolerance to pain can be learned from watching a model endure what the viewer perceives to be a painful experience. (Especially useful for those who must conduct or endure long meetings or seminars.)
- And, finally, one researcher has determined that we are what we watch. Specifically, he found that those who watch "All in the Family" most frequently are most tolerant of and in sympathy with Archie Bunker's attitudes and views. The researcher does not suggest a causal relationship but if some Sunday morning you notice the "Gilligan's Island" rerun you're watching is one you've seen three times before — and you're still enjoying it — it might be time to consider the effect behavior modeling is having on you.

Reprinted from TRAINING, June 1978

BEHAVIOR MODELING: LINKING THEORY WITH PRACTICE

Does behavior modeling amount to training robots, or worse yet, cloning individuals? Probably not. Here's an approach that shows how to connect theory with practice

BY CHARLES E. LIST

A trainer from another company came to me looking for training alternatives for her supervisory personnel. Her management was committed to formal training as a way to increase supervisory performance. She already had evaluated many courses: canned programmed instruction, theoretical modular class courses, company-developed theory and practice courses, handout materials and lectures on aspects of supervision, programs developed and taught by outside resources using instruments, case studies and topic articles.

As I explained the supervisory training we were using, I could see that she was uneasy. She looked skeptical as I discussed the fact that the behavior-modeling approach we use is not based on theoretical study, but on skill building. Our supervisors learn by: 1) seeing a good example, 2) receiving a mental framework to understand elements of the skill to be learned, 3) rehearsing the skill, and finally, 4) receiving positive feedback from other learners when the skill is properly demonstrated.

We offer our supervisory training course one-half day per week for 15 weeks—plenty of time for individuals' modeled behavior to be slowly incorporated into natural on-the-job interactions. Between sessions, the learners experiment with the behavior and share their successes and errors with other members of the training group.

Over time, the small-group atmosphere fosters a collaborative climate in which members comfortably can share feelings about their interactive effectiveness. I explained to my guest that trainees usually are skeptical about the training until they have had a chance to experiment with it for better or for worse in a real job situation.

After they have been able to effectively handle a potentially sticky or difficult situation—say by using the sequential steps of interaction we teach—individuals become highly motivated to adopt the model as part of daily behavior.

The more I described the process, the more enthusiastic I became. But my enthusiasm was not contagious. I was met with critical remarks as the trainer attempted to understand what I was saying about behavior-modeling instruction. She had a difficult time conceptualizing the holistic value of this training compared to the traditional theory training she had heard about in the other organizations she visited.

She expressed honest confusion, in part because our behavior-modeling approach is radically different from most approaches to supervisory development. And because she knew I was a university instructor, she was surprised that I would so enthusiastically advocate a training method that seemed to lack theory. She had come expecting to discuss a sophisticated traditional program.

At this point, I asked my guest to let me start over in explaining behavior-modeling instruction. I drew a model of the theoretical learning dynamics behind behavior-modeling instruction. Behavior modeling, as I pointed out, consists of three stages of learner awareness and understanding. The first phase is shown in Figure 1.

In our organization, a person learning to model behavior first becomes aware that the most frustrating events a supervisor encounters are interactions with others, more often than not with subordinates. Consequently, supervisors learn to be sensitive to verbal and nonverbal clues of impending frustration. Once this is detected, the supervisor must acquire an understanding of the interaction.

Correctly modeled behavior shows the supervisor acting empathetically and listening to the other person. The other person is allowed to express feelings and emotions—often this can provide a clearer perspective of what is happening between them. Presumably the result is heightened understanding of the situation that will generate ideas on how to resolve the problem.

The second phase of learner awareness involves self-recognition of the learner's feelings about the situation (see Figure 2).

This is the heart of our behavior modeling. To pass over feelings negates the likelihood of the learners being able to interact skillfully in on-the-job situations. Strong feelings can help the trainee-supervisor retain personal power over the situation, to control the interaction.

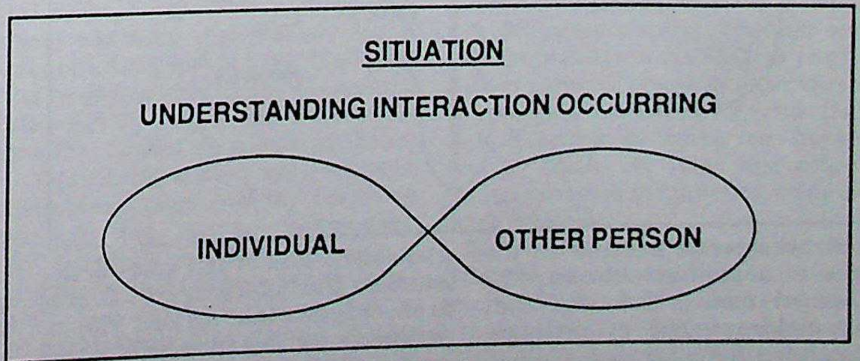


Figure 1
Awareness and empathy

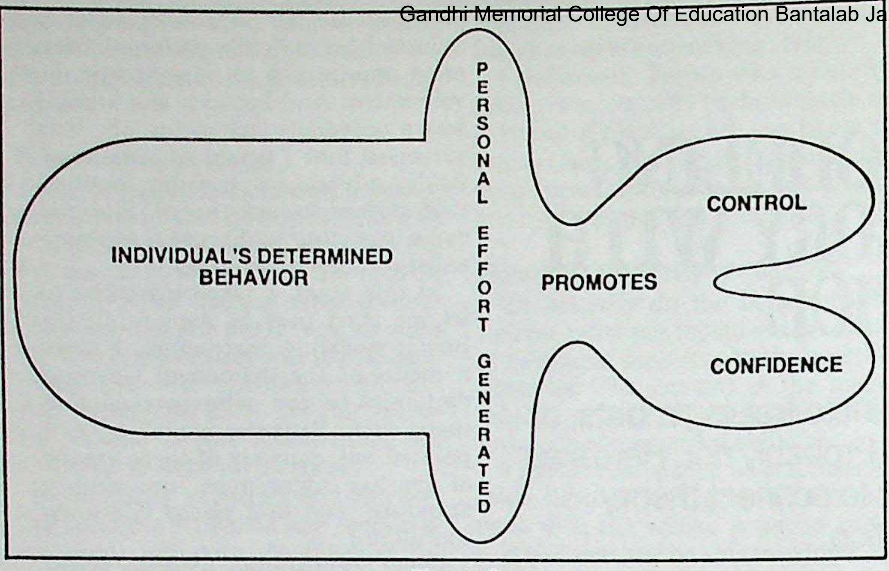
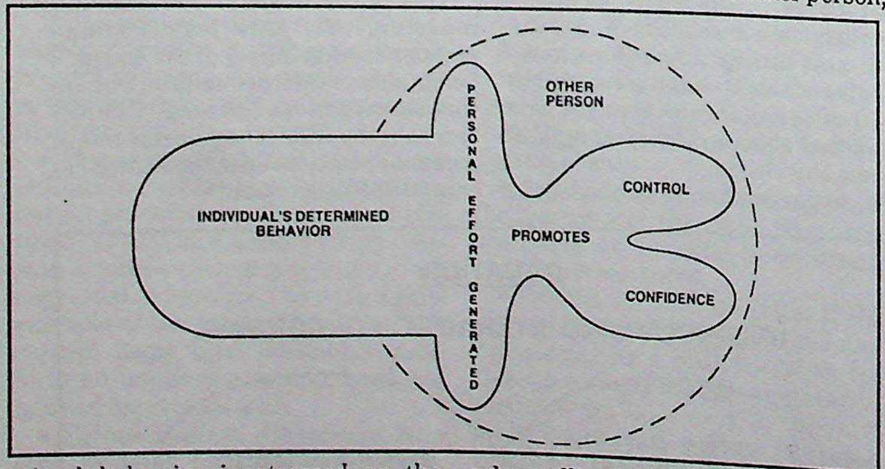

PERSONAL EFFORT GENERATED
INDIVIDUAL'S DETERMINED BEHAVIOR
PROMOTES
CONTROL
CONFIDENCE

Figure 2
Recognition and control of feelings

Simultaneously, the individual feels inner confidence about the interaction as it progresses toward a positive outcome for both parties. We call this *determined behavior energy.* It is sustained by the strong desire of the learner to see the interaction conclude successfully. The power of the learner's feelings sustains the determined behavior.

The whole purpose of our behavior modeling is to increase the probability of positive interaction outcomes. The third phase of the model we use (Figure 3) depicts four alternatives.

The trainee supervisor is encouraged to remain aware of the alternative outcomes. In the first one, lose-lose, no one gains. The interaction culminates in strained relationships and bitter feelings, resulting in loss of time, effort and perhaps money. In behavior-modeling training, determined behavior is stressed as the means to a positive outcome. The individual models behavior that keeps dialogue going by listening, maintaining the other person's self-esteem and asking for the other person's help in arriving at an acceptable solution.


OTHER PERSON
PERSONAL EFFORT GENERATED
INDIVIDUAL'S DETERMINED BEHAVIOR
PROMOTES
CONTROL
CONFIDENCE

The determined behavior again gives the individual control and confidence and helps preserve emotional control. If the two parties become too emotional, rational behavior disappears, raising the high probability of a lose-lose situation.

The second alternative outcome is lose-win. In this situation, the supervisor's needs are not met, such as when the other person quits. The supervisor could not work the situation out and the employee "wins," in that the outcome is perceived as being in his or her best interest. Again, the supervisor realizes this potential outcome exists and makes a determined effort to lead the interaction in a positive direction.

In the third alternative outcome, win-lose, the supervisor's needs are met at the expense of the other person, who suffers loss of self-esteem. Resentment and bitterness are left over to affect future interactions. The supervisor's warned to recognize this consequence and to work so that the other person does not lose in the interaction. Actively listening to what the other person is expressing and projecting empathy and acceptance allows the subordinate person to contribute to an equitable solution for both parties. We teach that you haven't won if the subordinate person loses.

Finally, there is the desirable fourth alternative outcome, win-win. Mutual needs are met. Positive feelings remain intact. Moreover, a belief is built that future situations can be worked out in the best interest of both parties. In behavior modeling, individuals are shown how their determined behavior can increase the probability of this outcome.

Happy ending

After I had completed walking through the model, I could see a noticeable change in my guest's expression. She was much more comfortable now that she could visualize the theoretical aspect of behavior modeling. It became obvious in our further discussion that her initial concern was that we might be training robots, or worse yet, cloning individuals.

In the end, she admitted it was an interesting meeting. She was happy to have had the opportunity to assess a different approach to supervisory training. She phoned me several weeks later to thank me again for my time, as well as inform me that her organization may use behavior modeling in the future.

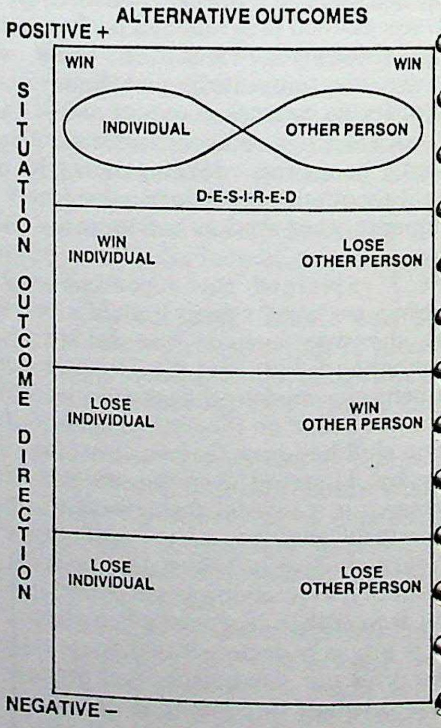

ALTERNATIVE OUTCOMES
POSITIVE +
SITUATION OUTCOME DIRECTION
WIN
WIN
INDIVIDUAL
OTHER PERSON
D-E-S-I-R-E-D
WIN INDIVIDUAL
LOSE OTHER PERSON
LOSE INDIVIDUAL
WIN OTHER PERSON
LOSE INDIVIDUAL
LOSE OTHER PERSON
NEGATIVE –

Figure 3
Awareness of alternative outcomes

Reprinted from TRAINING, January 1982

BUILDING BEHAVIOR MODELS THAT WORK— THE WAY YOU WANT THEM TO

You may already use training programs based on behavior modeling. But do you know what distinguishes an effective modeling film/video from a loser?

BY RON ZEMKE

Learning by watching. That's the core idea underlying the concept of behavior modeling. Trainers and researchers are becoming increasingly aware of the power of instructional programs purposely designed to take advantage of this "monkey see—monkey do" principle.

Researchers at Stanford University and at the University of Washington recently have demonstrated that training programs based on behavior modeling can be used to teach leadership skills in a relatively short time, that the behaviors learned actually transfer to the job, help supervisors and managers do their jobs better, and continue to be effectively used and useful long after the training. Similar findings are beginning to emerge for sales and customer relations skills training as well.

The behavior modeling concept is an integral part of social learning theory, the product of critical research by developmental psychologists Albert Bandura, James Aronfreed and others. Social learning theory asserts that we learn much—if not most—of our behavior vicariously, by watching others and retaining and remembering both what they do and the apparent outcome of that behavior.

Taking on a new behavior, say the social learning theorists, requires two processes—acquisition and performance. In the first step we see others act. We *acquire* a mental picture of the act and its consequences. Then we *perform* or try out the act ourselves. This is, of course, where conditioning principles come into play. If we find the consequences of imitating the model rewarding, we're likely to act that way again.

Obviously, you and I don't imitate and try out every behavior we see others engaged in. In fact, adults seem to apply quite a few restrictions to whom and what they will parrot. We are most likely to try out a new behavior if we see someone prestigious, powerful and competent doing it. (How many of us, for instance, dusted off our old tennis racket and ambled onto the court because a significant role model—some personal idol or strong influence—encouraged us through example?)

But our expectations and experiences with reward and punishment in similar situations also mediate the chances that we'll try the modeled behavior. A five-foot-five, 35-year-old male watching Bill Walton play a magnificant game of basketball may not be encouraged by the example to play a little one-on-one. But a five-foot-five, 15-year-old female might be.

There seem to be a wide range of behaviors amenable to learning through this "monkey see-monkey do" paradigm. We've all seen young children mimic the way adults dress, walk, talk and treat one another in embarrassingly fine detail. By the same token, most of us can recall a dance step or two, a questionable driving habit or personal peccadillo we learned by scrutinizing the behavior of teenage peers.

Adults, too, learn from watching those about them. Salespeople or supervisors at ABG Corp. will tend to sell or supervise more like one another than like the supervisors or salespeople from XLM Corp. And when a salesperson or supervisor from XLM moves to ABG, his other behavior usually changes to match the behavior of new colleagues, sometimes with foresight and conscious intent, sometimes totally unaware.

Trainers and researchers attempting to apply the social-learning/behavior-modeling approach often find it leads to a radically different framework for designing training, one that is particularly useful to those who train others to do complex motor-skill tasks, as well as those who train others in interpersonal communication tasks.

Though the particulars of a modeling-based program vary from designer to designer, and depend largely on how each interprets or values the research particulars, few would disagree that it's important to facilitate three processes in the trainees:

- *Attention*—making sure the trainees attend to the pertinent aspects of the behavior being modeled.
- *Retention*—helping the trainees remember the original observation points and key behaviors of the model.
- *Reinforcement and motivation*—using practice feedback and positive reinforcement to translate observational learning into skilled performance. These key points tend to translate into a five-step program design.

1. **Present overview.** The instructor explains the objective and importance of the skill module.
2. **Describe critical steps/key behaviors.** The instructor describes the specific behavior or critical steps of the activity to be learned.
3. **View the model.** Trainees watch a film or videotape—a "modeling display"—in which an individual effectively utilizes the skill.
4. **Do guided practice.** Trainees engage in practice of the skill, in pairs, with one trainee acting as supervisor, salesperson or whatever and the second acting as employee, buyer and so forth. At least one other trainee observes the practice, using a prepared guide.
5. **Receive skill practice feedback.** After the practice session, the trainee receives feedback from observers and the instructor that emphasizes things done correctly. Where the behavior could have been more effective, alternative positive behaviors

are suggested.

'Modeling displays'

One thing is abundantly clear about a behavior modeling-based program: the "modeling display" on film or tape is a critical part of the program. Unfortunately, the trainer attempting to build or buy a modeling-based program will find little research-based guidance for specifying or evaluating a modeling display.

As one prominent researcher confides, "The research in that area is really just beginning. We only know a few of the general guidelines and not very many specifics at all. We're not even sure what questions the practitioners *need* answers to."

In other words, the design of modeling displays is more art than engineering, and will remain so until researchers have a chance to catch up with practice. But leading practitioners are coming to some conclusions on the basis of their experience at building, testing and revising modeling displays.

And as you might expect, there are both agreements and disagreements among them about what to consider and control when attempting to build a behavior-modeling display that teaches what you want taught.

Interviews with a number of experienced modeling display builders turned up dozens of variables and considerations that go into making film or videotape models. And while the experts disagree on a number of critical issues, there are a few points of consensus:

1. The behavior to be learned must be shown clearly, positively and directly.
2. Trainees must be able to *identify* with the person shown doing the behavior to be learned.
3. Distractors—technically, stimuli which could distract trainees from attending to the key learning points and critical behaviors—should be shunned.
4. The behavior must be presented in careful steps; it should be "programmed" from simple to complex situations and from easier to more difficult-to-handle problems.
5. Modeling displays should not be confused with information or entertainment films.
6. Trainees expect high-quality video, comparable to broadcast-quality; low-quality displays distract.

Though the experts agree on these major guidelines, they disagree on others. Nor do they see eye to eye on applying the things they *do* agree on. There are four of these disagreements you should personally resolve when designing your own modeling display, or assessing a commercially available one.

1 **Dressing the set.** Odd as it may seem at first, there is quite a bit of disagreement about the visual background the model appears in. The basis of the disagreement is a difference of opinion in the balancing act one must do, attempting to create *identification* and *credibility* in the display while avoiding distractions.

Bernard L. Rosenbaum, president of MOHR Development Inc. in Stamford, CT, emphasizes using as realistic a set as possible, even to the point of filming or taping in the actual work environment.

"Every bit of research I've seen indicates that the more people can identify with the setting, the more likely they are to learn," says Rosenbaum. "Of course, you want to avoid distractions. It won't do to have a noisy cash register in the background of a modeling display showing a retail sales supervisor working with a retail clerk.

"When the trainees can say those are *our* people, in *our* environment, handling *our* problems, they can't take their eyes off of the screen." For example, in a recent sales management module, MOHR shot the pre-call in a diner and the post-call part in a car, Rosenbaum explains: "Those are the places where the client's pre- and post-call coaching takes place, so that is the environment we showed."

Dr. Donald Tosti, vice president of Forum/Operants, Inc. in San Rafael, CA, and Robert Carleton, director of Forum/Operants, take a line directly opposite Rosenbaum, preferring to use very barren, almost stark, settings. To Carleton the issue of set design is related to the "focal point" concept in advertising.

"Do everything you can to make the viewers focus on what you want them to be focused on," says Carleton. "The more you put in a set, the more chance there is of distraction. Just as surely as you put a vase of flowers on a desk, someone in the audience is going to holler out, 'Hey, when do I get flowers on *my* desk?' And that is just the opposite of what you want."

Tosti holds a psychologist's view: "You have to guard against eliciting responses—behaviors—incompatible with the behavior you want learned. If you think something has the potential of being a distracting stimulus, leave it out."

"In technical training," Carleton adds, "we cover the parts of the machine that are relevant to the learning point. It's the same here. We've never had anyone distracted by the *lack* of irrelevant details, but we've certainly seen distractions occur because of the presence of irrelevancies."

Danny Hupp, program development manager for Pittsburgh-based Development Dimensions International DDI, takes a middle position, calling for approximate but not identical settings. "The environment must be positive and believable but it must not intrude," he says. "Offices must be credible and plausible but not identifiable.

"When I dress a set, I want it to give context to the scene and then disappear when the interaction starts. People are overpowered by a set that is wildly wrong, and also by a set that is too close to home. You don't want them trying to guess whose office it really is. Funny posters, book titles, all that could distract from the learning, should be out."

Dr. John H. Zenger, president of Zenger-Miller in Menlo Park, CA, tends to agree with Hupp's view. "When the environment is too close to home, participants seem to nitpick," he says. "During the testing of a hospital program we were producing, the nurses spent time challenging the way the actors wore their hats and the way they opened the autoclave. Being too realistic was a distraction."

But Zenger also cautions that realism is both "a learning and a marketing issue," adding that "sometimes the buyer's comfort level dictates the exact behavior and environment. You can work with that initial resistance but you also have to be sure you are arguing valid learning points, and the research isn't nearly that specific."

2 **Perfect vs. coping performance.** A second strongly held set of positions involves the perfection of the behavior examples you show. The bone of contention is believability.

Some experts say a perfect and smooth performance is alienating—or at least lacks identifiability—while a less skilled or coping performance may encourage trainees to try the skill. "Watching a Borg or a Connors play tennis doesn't affect us duffers," Zenger observes. "We *know*—or at least believe—there is no way we could serve like that. On the other hand, seeing a fellow duffer improve his serve substantially does persuade us and encourage trying to improve."

Rosenbaum is most emphatic

MORE HINTS ON SUCCESSFUL MODELING

Successful behavior modeling requires advance identification of desirable, manipulable and selectively reinforceable behavior, according to University of Missouri management professor Phillip J. Decker, a leading empirical researcher on the subject, and Rusti C. Moore, education and training director at Barnes Hospital in St. Louis. The duo recently shared with TRAINING a few hints on developing behavior-modeled training.

The skills that behavior modeling will attempt to teach must be outlined in a set of "learning points" that are not only written concisely for study by trainees but serve to introduce and guide demonstration portrayals of the skills. The learning points should be based on a thorough job analysis to discover "the correct and successful method" of doing the modeled behavior, the researchers

"An easy way to develop learning points is to ask supervisors (of your target population) to identify successful and unsuccessful employees," says Decker. "You can then interview or observe the successful employees to see how they do the focal job and double-check by interviewing or watching the unsuccessful employees."

Decker and Moore say that rule-like learning points that state general principles applicable in various contexts enhance generalization of the behavior learned from models. But if used, they must be accompanied by several models, each showing a different way of accomplishing the rule.

Models used in the training program should be from the trainee population and should have some status or informal leadership abilities, although it is best not to use supervisors. The easiest way to develop models on videotape is simply to present the learning points to the models and let them rehearse performances until perfection to the certified-correct form. Decker and Moore use no scripts or actors; they try to keep each model presentation as succinct as possible.

The role playing by trainees that follows presentation of a correct model "is more real to the participants and less threatening if we split the participants into groups of three or four," Decker explains. "Each then has a chance to role play more than one time. And each group of three or four participants is led by a subtrainer who gives the feedback and controls the role-play situation."

Again, no scripts are used. "We let the participants come up with their own problems that they have to deal with on the job," Decker says. "The only constraint is that the learning points must be used to solve the problem." Trainee observers offer comments on the quality of the solution; the trainer gives feedback on learning points.

Role plays are videotaped by each of the practice groups and, with the help of subtrainers, skills are reinforced and practiced well beyond the point of being able to reproduce the desired behavior correctly.

"Reinforcement for the new behavior on the job is critical and should be built into any behavior-modeling workshop," Decker and Moore advise. Part of the behavior modeled in a carefully designed program must be targeted at supervisors; they must learn to reinforce correct behavior when it is used on the job, even when the behavior is initially unsuccessful in its objective.

Although the requirements of small groups and videotape make behavior-modeled instruction expensive, Decker and Moore say results often are measurably impressive: behavior-modeled skills usually have productivity components. They also claim that "trainees' attitudes or beliefs about the behavior will come in line with the new behavior" and that modeled training "eliminates the problem of trying to change deep-seated attitudes" before training can succeed.—R.S.

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about the importance of showing a coping performance. "The research says that believability suffers when the performance is too well-mastered," he notes. "You have to like the people and believe you could do as good a job as you see them doing."

pp agrees that perfect models are inadvisable. "You can have a positive model without perfection," he says. "The audience must be able to say, 'I think I can do that with a little practice.' If the model is too good—for instance, if the model displays a clinical psychologist's skill in explaining feelings—that alienates the viewer. How could a trainee expect to develop that skill level?"

Tosti and Carleton acknowledge that too much skill in the model is probably alienating, but also believe the display must show mastery, not coping. "You have to be attentive to the verbals and nonverbals; the voice tone and pacing have to be appropriate, positive and believable," says Carleton.

Tosti adds, "If the model is counter to the experiences of the audience, if trainees say 'No, that couldn't happen in our company,' you have a problem. But at the same time, we are careful not to introduce a 'hard times' example—a supervisor, say, working with an employee who is giving him a bad time—too soon."

To counter the "not-like-me" or discounting phenomenon, Tosti suggests having trainees construct responses using the key learning points before they see the model do the behavior. "When they write their own theme and cue lines, the model is a supplement or adjunct and the discounting phenomenon is irrelevant," he says. "The model is being held up as a referent, not a display of perfection."

Zenger recommends simplicity as an antidote to an over-perfect performance. "There is no way you can make a model too simple," he says. "Keep it simple and it won't seem something that the trainees can't do. Actually, what happens is they find when they try the skill practice that it *isn't* all that simple and they concentrate on mastery of that model that seemed so simple at first."

3 **Real vs. neutral content.** The experts disagree on whether to use real company problems or neutral issues. Tosti and Carleton go for neutral topics: "We use problems like installing new phones or assigning overtime. Dealing with company issues turns training into a company meeting. That distracts from the process and what you want them to be learning."

Rosenbaum acknowledges that with too much company content in the modeling display, "you begin to do content rather than process training." Just the same, he insists there is important motivation to be gained from viewing "people in real settings coping with significant, enduring company issues. Transient or insignificant problems detract from the identification."

Hupp, who supports showing conflict and difficult problems, cautions against controversial topics such as sexual harassment or politics. He also recommends avoiding graphic descriptions of the problems. "In the old TA terms," he insists, "you run the risk of hooking the critical parent or playful child with problems that distract from learning the process."

4 Negative vs. positive examples. Another aspect of display building that separates our experts is the use of "bad guy" examples. Rosenbaum is very emphatic. "In no instance have we found it helpful to show people doing the behavior incorrectly," he says.

Hupp, however, disagrees: "The reality principle requires that we should show people that all problems don't have sugarplum resolutions, but I am cautious about recommending the use of negative models. It's difficult enough to set up a really positive but realistic display."

Neither Zenger nor Tosti rule out negative examples entirely. "The research isn't clear," Zenger says cautiously. "There is some evidence that the negatives may be better remembered in the long run than the positives. If you believe in the power of modeling, it is logical to reserve the use of negatives for situations where it is absolutely necessary."

Tosti makes a critical distinction: "A behavior model is composed of a series of critical steps that lead from problem to solution. Sometimes learning to discriminate between more effective and less effective behavior requires showing both good and bad examples.

"But that is different from showing a complete good/bad contrast model," Tosti continues. "Our experience suggests showing a contrast model at the end of a program doesn't hurt, but it can be very problematic to show one at the beginning of a program, before they can accurately judge the performance on their own."

The list goes on

These are but four of the critical issues to consider when building and evaluating behavior modeling displays. There are other points of contention, such as using trained actors as opposed to "real" managers, whether explanations and concepts should or should not be included on the tape or film along with the model, how long a modeling sequence should be, whether scripting or ad-libbing is better and the relative merits of custom and "off-shelf" modeling displays.

But one thing is abundantly clear: developing behavior modeling displays is a very different technology from traditional training film development. "The advantage of using the behavior model paradigm is that it increases the likelihood of transfer to the job," says Hupp. "Dressing people up in fairytale costumes and having them act out metaphorical stories may be entertaining, but it's not modeling."

Zenger takes even a stronger view: "If you think a subject is so dull—and the students so lowly—that only an entertainer will make an impression, so be it. But if you assume your trainees are adults, eager to learn to do a better job, you need not resort to motivational tricks. I prefer the latter assumption. Behavior modeling programs are based on it, and we've got pretty good data to prove that they work."

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ARE YOUR PROGRAMS DESIGNED FOR WHITE RATS?

Stop running the training maze—by sharing responsibility with the learners

BY RON ZEMKE

Any speaker in the field of adult education and training can ensure audience applause and adulation through the forceful utterance of the single, simple declarative sentence: "Adults are not white rats!" But once said and applauded, what exactly does the statement mean?

Are we expected to conclude from this pronouncement that the principles about learning and performance culled in the rat and primate labs are null and void when the target population is composed of relatively normal John and Jane Doe adults?

"No," insists Patricia McLagan, president of McLagan and Associates, a HRD firm specializing in developing educational experiences for adults. "To embrace the slogan and then jump to the conclusion that reinforcement or modeling or C.A.I. doesn't work for adults is to miss the whole point," she continues. "The real issue here is how one goes about structuring adult learning opportunities for maximum benefit to the individual learner. The adult learning specialist doesn't argue that reinforcement is or isn't necessary for learning—behavior change—to occur. We do argue that, at best, it is not—by itself—sufficient for learning to take place."

Some detractors of the adult learning movement imply that the new adult learning specialist is afraid of a systematic approach to training and education and the accountability implied in the model. Other skeptics see the adult learning specialist as a warmed over-remnant of the defunct T-group and sensitivity training movements, sheep in wolves' clothing, lobbying for a return to the good old days of touch and feel training.

McLagan believes that the adult learning specialist viewpoint actually asks us to be *more* systematic and *more* pragmatic than we already are. Take the issue of a working definition of learning. "In the laboratory, learning is defined as a relatively permanent change in behavior resulting from experience and not attributable to maturation or physical changes in the organism. Now that's functional and adequate for the lab, but it doesn't help trainers much. I need a bigger, broader definition, so I've had to build my own. To me, learning is a change in knowledge, behavior, attitudes/values/priorities or creativity that can occur when learners interact with information. It occurs to the extent that learners are motivated to change, and it is applied in the real world to the extent that they take successful steps to integrate learning into the real-world situation. Now that's something I can work with, get guidance from."

Nor does the adult learning specialist shy from the concept of instructional objectives or evaluating the results of a learning program. He or she simply attacks these issues from a different perspective.

The difference is in who does what in the learning design process. "I believe that the instructor or curriculum designer has the responsibility for doing a good needs analysis, determining whether a problem exists and whether a training solution is appropriate. I have no problem with the instructor creating guide objectives and being responsible for really designing a well-organized program aimed at specific objectives. But I don't believe that the instructor can write terminal objectives. The instructor's role is one of co-designer, co-author, at best. To me the *real* terminal objectives have to be written by the learner."

Implicated in this co-design concept is an explosion of problems for the evaluation of the learning effort, the measurement of bottom-line impact. "To me," McLagan continues, "evaluation is tied to application. The instructor doesn't own the performance problem; the learner does. Only the individual learner can solve the problems. It's their world, their environment. For me to assume ownership is off base. But pointing to the individual as responsible for solving the problems doesn't divest the teacher-trainer-facilitator of all responsibility. Learner and trainer are mutually responsible."

The trainer is responsible for correct needs and problem analysis, information finding and organizing; for communicating the information clearly, correctly and in a way that makes it important to the learner; for helping the learner to learn. The learner is responsible for analyzing his own needs, for setting goals, for customizing the learning to his own situation, and, ultimately, for designing an application plan and using it.

We need to have those responsibilities clear before we talk evaluation. That's because the evaluation must address all the responsibilities. "What did you learn?" is an important question to ask trainees...although it usually isn't. It's important because the overlap between this self-report and what you, the trainer, intended is very telling. For example, if the overlap is 100 percent most of the time, you're doing something wrong. The learners don't feel free to pick and choose and they don't feel free to be creative. They are taking, holding, and giving back, but that may not be enough. And you have to look at behavior. Did they do what they said they'd do in their application plans? And to organizational outcome the questions "Did the problem get solved?" and "Was money made or saved?" have to be answered. Evaluation is a lot tougher when dealing *with* adults, *as* adults, *from* an adult learning perspective.

The design orientation of the new adult learning specialist is most at variance with traditional pedagogy. This difference is characterized in the title of McLagan's own book, *Helping*

Others Learn: A Handbook for Adult Educators. To McLagan, helping others learn involves designing at least some extra degrees of "learnability" into courses, workshops and seminars. McLagan's approach to analyzing the adult learnability of a program has three touchstones we can apply to any adult learning program:

1. Is the learning experience problem centered, as opposed to curriculum-, concept- or subject-matter oriented?

2. Is the experience personalized, reflective of the learner, the learner's world and the learner's needs?

3. Does the learning experience ask the learner to share his or her examples, ideas and experiences and, in general, share responsibility for the learning experience?

If your training program or educational experience *does not* lead you answer "yes" to each of these three questions, then you should ask yo self *one more question:* "Is my program designed for adult learners or white rats and pigeons?"

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HOW TO MAKE TRAINING DECISIONS—*CREATIVELY*

f you are hard-pressed to maintain a fresh enthusiastic pproach for that "same old program," try these creative problem-solving techniques

BY M.O. EDWARDS

As training director of X Corporation, I'm stuck conducting three back-to-basics courses iddle managers 10 times a year. lthough I've straightened out most of e kinks and trainers still give the urse high marks, I'm damn tired of e subject matter. And I'm hard- essed to maintain a fresh and enthu- sic approach in my teaching"

nd familiar? If so, you have a blem. Of course, recognizing that roblem exists is the first step ard solving it— and there's a good that a process called creative blem solving (CPS) could help you t altogether.

CPS can be thought of as either a *red* approach to *creative* think- r an *imaginative* approach to *logi-* inking. Somewhat paradoxi- creativity requires both open- nd directedness, a sort of guided wheeling." Using CPS doesn't tee imaginative, useful solu- to your problems, but it does in- the likelihood of your obtaining

CPS process consists of five basic nd is, in effect, an adaptation of aditional scientific method. by listing the problem areas of nges that exist for you at the t time, and then select one of problem areas and describe the on in narrative form, as the r for X Corporation did. Then d through the following steps: 1) ll pertinent facts; 2) define the problem or problems; 3) list all your ideas for a possible solution; 4) choose the best or most logical solution; and 5) determine how to implement the solution.

Illustrating the five-step process in circular form (see below) may encourage you to think of the technique as a cycle rather than as a series of linear steps. This suggests the idea of flexibility among the five stages and indicates that you may have to go through the cycle more than once before finding a practical, easily implemented solution to your problem.

Assume that you are our bored and baffled trainer and that the tasks currently stumping you are: 1) how to motivate managers to sign up for those wonderful training programs you've designed; 2) how to retain a fresh approach in repetitive training this spring; and 3) how to maintain a learner, rather than a teacher, emphasis. Assume that the second problem is the most pressing one. Now, put it all on paper. Write down the particulars of the problem that most bother you. Spelling it all out provides you with a description of the problem you choose to *work on* and indicates a goal you wish to *work toward*. Once you've painted a verbal picture of the here and now, it's time to...

Get the facts

Gather all the additional information you can about the problem. If you draw a blank, ask yourself questions that begin with who, what, where, when, how many, how much, and so on. Like this:

What have I tried? (Warm-up exercises, new ways of getting acquainted.)

What kinds of activities "turn on" classes? (Small group exercises, role plays, games.)

What stimulates me? (When I sense the group "taking off" on its own.)

How are the courses evaluated? (Self-evaluations, follow-up questionnaires.)

Now, go on to the next step, and...

Redefine the problem

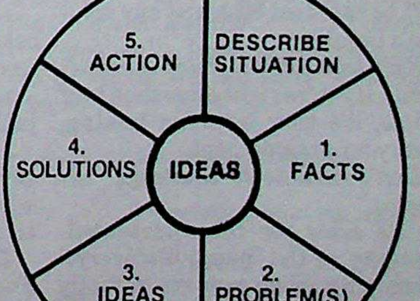
Try to see the problem from several different viewpoints — those of your boss, your trainees, your secretary, your spouse, your trainees' subordinates. Try to compensate for the fact that none of us ever can be truly objective about our problems; we all tend to cheat a bit.

Now, let's redefine our sample problem as a series of questions:

1. "How might I keep from getting bored?"
2. "How might I stay fresh and enthusiastic in the trainees' eyes?"
3. "How might I do a more effective job of facilitating?" If you ask, "Why do I want to do this?," you might reply, "To maximize the probability that real learning will take place." Your next question then might be:
4. "Why should I maximize the probability that real learning will take place in my classes?" You might answer, "To improve on-the-job performance," a response that leads to other questions:

The Creative Problem-Solving Process

1. Fact-Finding
2. Problem-Finding
3. Idea-Finding
4. Solution-Finding
5. Acceptance-Finding



5. "How might I best contribute to improving on-the-job performance?"

6. "How might I make every class a 'happening'?"

Now you should review the various questions and choose the most appropriate. This type of analysis helps us choose a basic or "real" problem instead of a symptom. If we select more than one problem statement, we should consider them in order of priority. Be sure to check to see that your problem statement is worded for creative attack, that is "How *might*" or "In what ways *might*..."

Mull it over (freewheel)

Most of what we could consider "creative" thinking takes place at this point, when you simply pull out the stops and brainstorm. Write down all the ideas that occur to you as possible ways to solve your problem. The object at this point is *quantity*, not quality, so don't discard *any* ideas that seem far-fetched or impractical. Instead, use them as jumping-off points to stimulate new ways of approaching the problem. One good way to gather ideas is to have a brainstorming session with your staff. Research indicates that a group can produce more good ideas than individuals working alone.

If the ideas won't flow, get away from the problem for a while. Take a walk, read a book, play some tennis, or work on another project. Chances are, a sudden insight will occur while you're doing something totally unrelated.

Using these techniques, our trainer from X corporation might have thought up these possible solutions to his problem (assuming he selected number six): In what ways *might* I make every class a "happening"? 1) Ascertain student needs the first day and restructure the course; 2) experiment with a new approach every time; 3) involve the students in different ways; 4) ask for periodic feedback from superiors; 5) restructure objectives; 6) ask the students to rotate the responsibility for parts of the courses; 7) have the students select work-related projects; 8) construct a morphological (matrix) chart; 9) devise some work-related self-testing; 10) construct a "wheel of fortune" to select activities; 11) put informational material on tapes.

Choose a solution

So far, we've been careful to defer

HOW TO STIMULATE IDEAS—YOURS' AND YOUR TRAINEES'

1. *Remember that there is always a better way.*

2. *Search for breadth as well as depth.* Dig deeply into the subject, but also expand your horizons — read widely, let your curiosity take you where it will.

3. *Consider yourself a thinker* as well as a learner and a doer.

4. *Develop a honeybee mind.* Let it buzz freely from one idea or source to another.

5. *Sharpen your nose for problems.* Be curious, listen to complaints, be constructively discontent. Welcome problems as opportunities to sharpen your creative abilities.

6. *Play with ideas.* Back off from the problem. Think about it with the naivete and freshness of a child.

7. *Look for the "elegant" answer* —don't be satisfied with just any solution to a problem.

8. *Keep track of how your "hunches" work out.* If you're right more than half the time, it's your intuition talking, not just your prejudgment.

9. *Don't hesitate to challenge "sacred cows."*

10. *Be alert for the unexpected.* Serendipity, or the "happy discovery," happens only when you are actually seeking something. As Pasteur said, "Inspiration is the impact of a fact on a prepared mind."

11. *State your problem carefully.* Don't let the statement suggest the answer. For instance, if you ask a man to think up a new way to toast bread, you've already suggested a toaster. What you really want is a new way to dehydrate and brown the surface of the bread. State it this way, and you open up new idea opportunities.

12. *Conduct your own private brainstorming session each day.* Drill your mind and just plain decide to be creative.

13. *Be an idea trapper.* Ideas are elusive. So trap them on paper or on a tape recorder before they drift away.

14. *Keep a reference library and an idea bank.* Maintain a file of clippings, notes, pamphlets, etc., even if you can't read them right now.

15. *Relax your mind.* Free associate on your way to and from work. Try a hot bath or shower, restful music. After a good night's sleep, get up an hour early. Take a long walk, meditate. Set your problem aside for a day and hit it hard the next. Or work on two projects alternately. While working on one, a new idea for the other might pop into your conscious mind. That's planned incubation.

16. *Remember that your willpower controls your imagination* and is affected by your emotions. Build faith in yourself by scoring successes on little problems before you tackle big ones.

17. *Find the right time of day.* The time for "red light" thinking comes when your mind isn't running creatively.

18. *Set a quota–and a deadline, too.* Force yourself to do a little better each time. Strive for a set number of workable solutions to every problem. A deadline keeps you from putting things off from day to day.

19. *Don't kid yourself with vague ideas.* Force yourself to reduce them to specific propositions, thus firming up the problems you must solve.

20. *Sharpen all your senses.* Practice recalling interesting faces, images, sounds, smells, factual experiences, tastes, etc. Robert McKim of Stanford University suggests a number of exercises in his book, *Experiences in Visual Thinking.*

21. *Fantasize.* Guided imagery and guided daydreams can help you "break out of the box" and think beyond the edges of the familiar.

22. *Find new ways to change your point of view.* Use Osborn's creative questions and manipulative verbs, Synectics, excursions through use of word imagery, analogies, and "upside-down" thinking— anything to help you see your perplexing situation in a different light, to restructure your perceptions and color your imagination to make new, possibly remote, connections.

23. *Seek dissimilar responses.* The general semanticists remind us that often "advantageous vagueness" encourages "dissimilar" responses (as in brainstorming) and this helps us avoid the "signal" (or obvious) response.

24. *When evaluating an idea, ask "What's good (not bad) about it?"* With a little work, a strange idea can become a great one. Sidney Parnes suggests using your evaluative criteria as creative catalysts for modifying seemingly strange ideas. In the Synectics process, an evaluator is asked to suggest several good points about an idea before indicating its shortcomings, thus closing the gap and allowing a panel to concentrate on the former.

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EVALUATION GRID

		CRITERIA					
	IDEAS	Effect on the objective	Ease of implementation	Effect on the students	Effect on the instructor	PRIORITY	REMARKS
①	Ascertain student needs the first day and restructure the course.	E	G	E	E	1	(Do!)
②	Experiment with a new approach every time.	G	G	E	E	2	(More work)
③	Get the students more involved in different ways.	E	G	E	E	2	(Relate 6, 7, 11)
④	Ask for periodic feedback from superiors.	E	E	G	E	1	(Do!)
⑤	Restructure my objectives.	E	G	E	E	1	(Combine #1)
⑥	Ask the students to rotate the responsibility for parts of the courses.	G	E	G	E	2	(Try)
⑦	Have the students select work-related projects.	E	E	E	E	2	(Do!)
⑧	Device some work-related self-testing.	E	E	E	E	1	(OK)
⑨	Construct a morphological chart.	G	E	G	E	3	(Try)
⑩	Construct a "wheel of fortune" to select activities.	E	E	E	E	3	(Try)
⑪	Put informational material on tapes.	G	G	E	G	3	(Try)

After listing the ideas brainstorming produces, use a simple evaluation grid like this to put them into useful perspective.

judging our ideas, simply writing them down as they come to mind. In this step, we must evaluate and select the ideas we wish to implement. To proceed in a systematic manner, it may be helpful to develop several evaluative criteria. Some possibilities are: effect on the objective, effect on the individual and/or groups involved, timeliness, cost, moral or legal implications, and so on.

For our example, let's select four criteria: effect on the objective, ease of implementation, effect on the students, and effect on the instructor. We can now set up an evaluation grid, listing the criteria at the top and the ideas along the left side. We could evaluate the ideas by a simple plus or minus or a check mark, or we could use an adjectival rating for each idea, such as E for excellent, G for good, P for poor, etc.

How to get there from here

The final step in the CPS process is to determine how to implement the chosen course of action. Remember, it often takes more imagination (and determination) to implement an idea than to originate it.

In our example, we could combine four ideas for immediate implementation. We might start by restructuring course objectives in performance terms, tie them in with an evaluation form, and check out the package with the students at the first class session and then with superiors afterward. Or we could redraft the course objectives, check them out with some selected graduates of the course, and then try them out on a few potential trainers. It's best to work out your plan in great detail, especially if you're seeking approval from a superior. Remember, it's much easier to sell a *plan* than an *idea*.

The problem-solving process

CPS is based on the logical progression of five steps that can and should be adapted to suit your needs. For example, on a simple problem you might have all the information you need to proceed directly to the problem-finding (or redefining) step. When you introduce changes into the original sequence, develop each step you use to the fullest; accumulate as many alternatives as you can before selecting the better ones. Creative behavior may be defined in terms of a formula keyed to the word IDEA —Imagination, Data, Evaluation, Action. If even one of these elements is absent, there can be no creative behavior.

The single most important factor in solving problems is *your own viewpoint*. You *can* become more creative, but it takes practice. Attitudes are based on *habits*, and these can be changed by conscious *effort* and *repetitive, positive reinforcement*. Schedule your own private (or group) brainstorming sessions each day. And write down all your ideas for later inspection, evaluation, and refinement.

Unless you make a point of calling on your brain for ideas on a daily basis, you haven't really decided to be creative. Waiting for the "proper" mood for creative problem solving can be self-defeating. Sure, you'll occasionally draw a blank. But that's OK. Frustration frequently leads to perspiration which is, as we all know, 99% of genius.

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HRD AND THE RULE OF FOUR

The four-style "grid" model comes in a lot of handy packages. And it can help us think through the training process

BY JOHN W. NEWSTROM

Managers, trainers, all sorts of people have long been fascinated by visual "grids" as helpful portraits of reality. We pick two sets of variables, two dimensions, that we believe have meaning in relation to each other, and graph them along horizontal and vertical axes. The resulting combination gives us a box with four quadrants: four kinds of people, four ways to approach problems, four types of whatever we like.

Examples pervade our management literature. Blake and Mouton's "Managerial Grid"™ lets us look at managers' styles according to their degree of concern for people vs. production. Hersey and Blanchard's situational leadership model highlights the Tell, Sell, Consult and Delegate approaches. The Thomas-Kilmann conflict style instrument features the Competing, Collaborating, Accommodating and Avoiding styles. A plethora of four-style personality models classify people according to factors such as dominance vs. submissiveness and hostility vs. warmth.

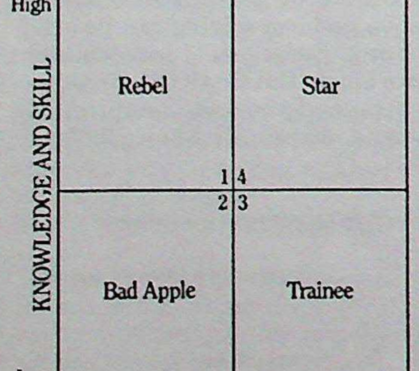
By making divisions along dimensions important to us and classifying people or things accordingly, we're able to satisfy a need for clarity. These four-factor models oversimplify reality, certainly; but they help us structure our thinking into patterns we find useful.

Though more obscure than the ones just mentioned, a number of four-style grids exist to help us conceptualize and structure the decisions and dilemmas we face in the training and development process. We'll be looking at 10 of them. Some have been pulled from books and articles that presented them in the familiar grid format. In other cases, I've adapted the thinking of various people into the two-by-two pattern.

The results are arranged to follow the traditional flow of the training process, beginning with organizational assessments, needs analysis and training objectives, then going on to consider learning styles, training techniques and program evaluation.

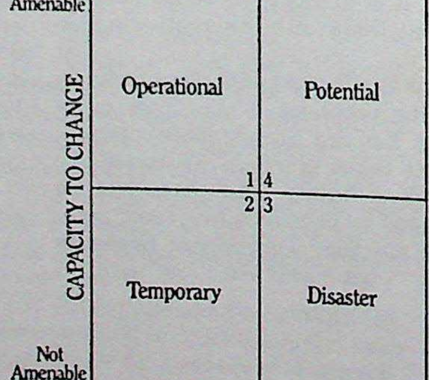
This little collection of four-style boxes can serve several helpful functions. The patterns focus our atten-

FIGURE 1
PERSONNEL PROBLEMS


High
Low
KNOWLEDGE AND SKILL
Rebel
Star
Bad Apple
Trainee
1
4
2
3
Negative
Positive
ATTITUDE

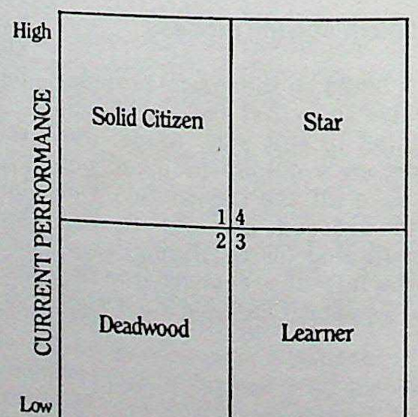
Adapted by the author from a speech by Fred Margolis to the American Society for Training and Development, 1976.

FIGURE 2
ORGANIZATIONAL ISSUES


Amenable
Not Amenable
CAPACITY TO CHANGE
Operational
Potential
Temporary
Disaster
1
4
2
3
Working
Not Working
PRESENT STATUS

From "A Diagnostic Model for Organizational Change," Steven Ruma, *Social Change*, 1974.

FIGURE 3
DEVELOPMENTAL POTENTIAL


High
Low
CURRENT PERFORMANCE
Solid Citizen
Star
Deadwood
Learner
1
4
2
3
Low
High
FUTURE PROMOTABILITY

From "Developing and Maintaining Human Resources," Timothy J. Keaveny, *Training & Development Journal*, July 1983. Adapted from an earlier model by T.P. Ference, J.A.F. Stoner and E.K. Warren.

tion on two primary elements of interest in each of the areas they address; they encourage contingency thinking (What if. . .?) by urging us to combine the two variables into meaningful combinations; they stimulate us to distinguish between choices and situations in which some single "best outcome" exists, and those in which we may find two or more equally viable outcomes.

A few words of caution before we begin. First, there's the obvious warning that all of these two-dimensional models are oversimplified and limited representations of the real world. Each is useful only for what it *can* do: introduce and highlight two important dimensions for the manager or human resources development (HRD) specialist to consider about the issue at hand.

Second, even to the degree that real people and situations can be explained in terms of the four quadrants in a grid, individual elements rarely fit neatly into a single quadrant. Actual analysis of any situation will result in a preponderance of muddy, fuzzy, "gray" assessments in the middle of each dimension rather than at the ends. In other words, real life is found near the center of most of these boxes far more often than in the corners.

Third, don't be put off by the terminology used to describe some of the "styles" in the various grids. In Figure 8, for example, the qualitative distinction between the terms "Creative Individualist" and "Conformist" obviously represents little more than somebody's idiosyncratic value judgment. The usefulness of these models lies in the conceptualizations, not in the labels.

Finally, depending upon who you are and what you're concerned with, some of these grids may produce powerful conclusions while others seem trivial or useless. The value of any particular grid may be in the eye of the beholder.

Personnel problems

Figure 1 helps illustrate the fact that personnel problems can spring from various causes and therefore lend themselves to a number of different solutions, training being only one possibility. The interdependent dimensions of this grid are: a) the employee's current level of skills and knowledge needed to do the job, and b) the employee's attitude toward improving his or her performance.

The "Rebels" in the first quadrant know *how* to do the job well, but they're doing it poorly. This is an attitude problem, not a training problem. Before we can prescribe remedies, we have to discover the reason for the rebelliousness. Is it the employee? The boss? Something the organization has done?

Quadrant 2 shows us "Bad Apples" who have neither the skills nor the attitudes required for satisfactory performance. They're usually the result of a hiring or placement error. The extreme solution is to transfer or fire them.

In quadrant 3 we find the individual who has the motivation to succeed but has not yet acquired the necessary knowledge and skills to do this particular job. Training is the obvious answer.

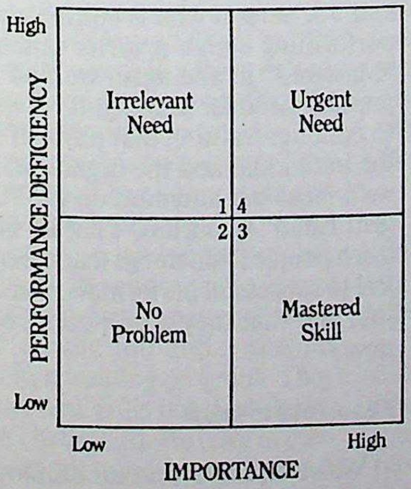
The "Star" in quadrant 4 is both willing and able to do the job well. The Star's supervisor simply has to clarify the job's goals and provide support, resources and opportunities to perform.

Organizational issues

Figure 2 refers to the various types of organizational issues that may require change and the degree to which they *can* be changed. In the broadest sense, this is a framework for an organizational needs assessment.

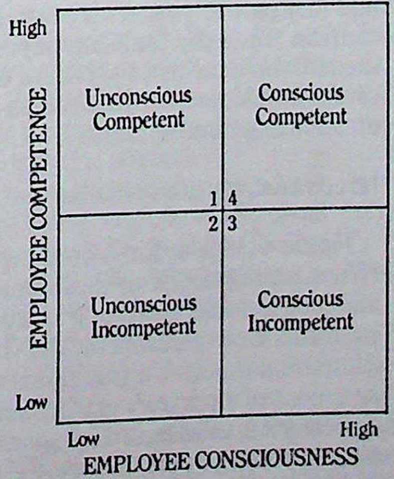
The grid's first dimension asks us to identify things (elements of the work environment, culture, mission, strategy, policies, etc.) that are important to the company's success, and then to decide which are working well and which are not. The second dimension demands that we analyze each of the factors we've identified and determine the likelihood that we

FIGURE 4
NEEDS ANALYSIS INTERPRETATION



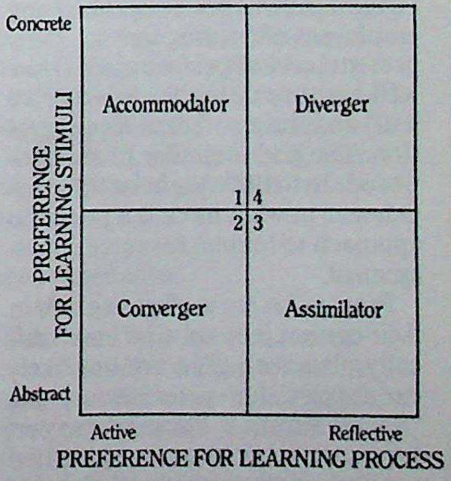
Adapted by the author from the "Training Needs Assessment Tool" created by T.A. McCann and J.T. Tashima, 1981.

FIGURE 5
READINESS TO LEARN



Adapted by the author from remarks by Lewis W. Robinson, 1974.

FIGURE 6
LEARNING STYLES



From "On Management and the Learning Process," *Organizational Psychology: A Book of Readings*, 2nd edition (Prentice-Hall, 1974). David A. Kolb, I.M. Rubin and J.M. McIntyre, editors.

can change it if we want to.

In the "Operational" quadrant we place those things we believe are working well, yet could be changed if the situation deteriorates. Operational factors, in other words, are both controllable and in control.

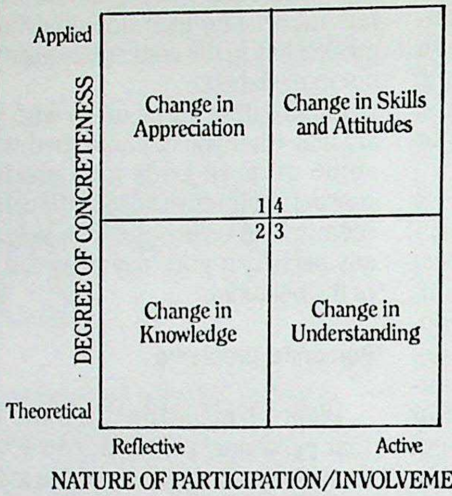
Problems we assign to the "Temporary" quadrant are neither severe nor readily fixable. That makes them largely irrelevant from our perspective. A short-term belt-tightening program decreed by top management may be causing some pain, for example, but it will pass, and there's little we can do about it until it does.

The "Disaster" area is where we find issues that demand immediate attention but, for some reason, cannot be addressed immediately: an incompetent executive who refuses further training; a product line that's selling poorly but that we can't adapt or drop quickly.

The "Potential" quadrant is the one to which HRD specialists and other problem solvers should direct most of their attention. Here problems cry out for improvement and the conditions are ripe for change. This is where we can make the most visible and important contributions to the organization—at least in the short run.

FIGURE 7

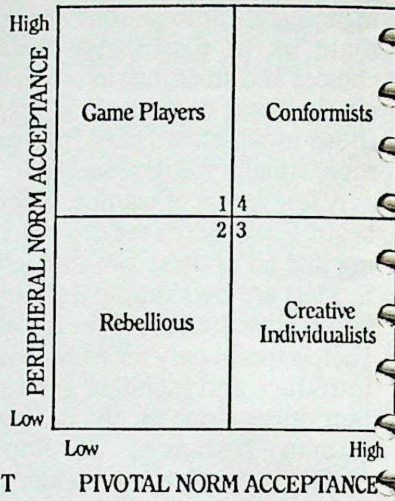
PEDAGOGICAL OBJECTIVES



From "Designing Meaningful Learning Situations in Management: A Contingency, Decision-Tree Approach," W. Alan Randolph and Barry Z. Posner, *Academy of Management Review*, July 1979.

FIGURE 8

TRAINEE SOCIALIZATION



From "Socialization to Learning," Patricia Sanders and John M. Yanouzas, *Training & Development Journal*, July 1983. Adapted from concepts proposed by Edgar H. Schein in 1968.

Developmental potential

We don't just want to train people to do their current jobs; we also want to develop some employees to prepare them for future assignments and promotions. At whom do we aim our training and developmental efforts? Figure 3 helps us decide by classifying employees according to both their present level of performance (How well are they doing the job they've got?) and their potential for promotion. The grid is similar to one proposed by HRD theorist George Odiorne in what he calls a portfolio approach to human resources management.

People who are performing well in their current jobs but who have basically plateaued (i.e., are not likely candidates for promotions) are "Solid Citizens." Those whose performance and promotion potential are both dismal are bluntly labeled "Deadwood." Someone with strong potential but weak performance in the current job is a "Learner." The outstanding performer with high potential for bigger things is a "Star." Individuals may switch categories from time to time: newly promoted Stars become Learners; Solid Citizens become Learners if the conditions of the job change, or Deadwood if they "burn out."

People in the Learner quadrant obviously are prime targets for immediate training and likely candidates for developmental programs. Solid Citizens probably require only minimal ("maintenance") training. Deadwood can be retrained for some other job—or transferred or fired. As for Stars, opinions differ. Some argue that they probably need very little attention from the training department. Others say that the bulk of our career-development efforts should be directed at grooming Stars.

Needs analysis interpretation

Figure 4 helps us focus on the specific training needs of individuals, and look at those needs in terms of a payoff to the organization. The first dimension involves a traditional assessment of a person's performance deficiencies, as assessed by appraisals, observations, test scores, self reports, etc. That tells us which skills the individual needs help with. The second dimension asks us to assess the importance of each skill in terms of performing the present job or a future one. In other words, this grid urges us to decide not only what they need to know, but how important it is to the company that they know it.

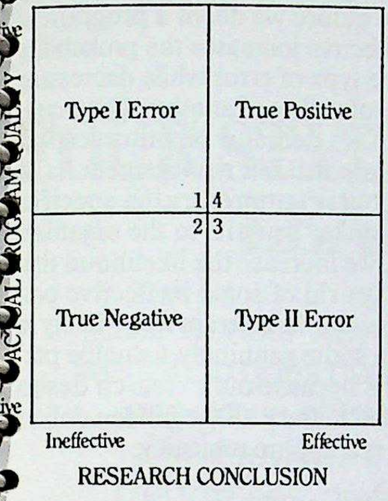
We may find, for example, that while an employee is weak in some skill area, the skill is not very important to overall performance on the job (it's required only rarely, or the cost of poor performance in this area is negligible). In that case, we have an "Irrelevant" training need—a low priority.

If we're looking at a low-priority skill that the individual performs well, we obviously have "No Problem." A person who is competently performing a high-priority skill has "Mastered" it, and again we find no pressing need for training. If we want to conduct training that pays off for the individual and the organization, we'll focus our attention on the "Urgent Need" quadrant. That is, we'll teach people to do things that are critical to successful performance on the job, and that they aren't doing well now.

Readiness to learn

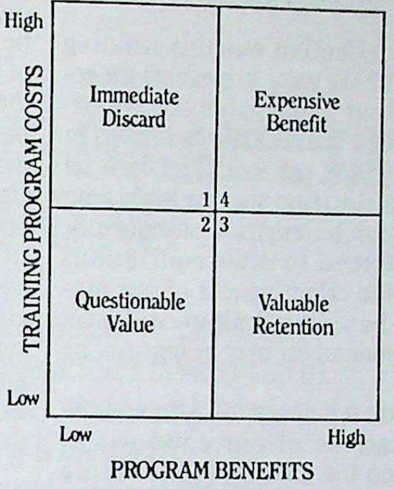
We've decided that an employee needs training on a particular topic. But does the employee agree with us? Figure 5 describes various types of trainees, and illustrates the point that adult learners must be convinced

FIGURE 9
EVALUATION OUTCOMES



by the author from *Social Research: egy and Tactics*, Bernard S. Phillips (Mac- o., 1966).

FIGURE 10
COST-BENEFIT ANALYSIS



By the author.

eally do need what the trainer is fering. If they aren't convinced, e unlikely to accept or use the formation. This grid suggests that lassify trainees not only accord- to their actual level of compe- nce (which we've already deter- d) but according to their own sciousness or awareness of how ey're performing their jobs.

If we followed the pattern in Figure en we decided who to train and o teach them to do (i.e., if we're ing with trainees and topics in Urgent Need" quadrant of Fig- 4), the only people we should be in this class are those in the om half of Figure 5. That is, "In- etents"—people who aren't al- performing up to snuff in the we're proposing to teach.

onscious Incompetents" are al trainees: They know their per- nce is deficient, they know they to improve and therefore they a built-in readiness to learn. onscious Incompetents" are a ter on the job and a serious m in a training program. They mportant skills but don't know on't believe it). We have to con- them that they have a serious mance problem before we can vely address it.

nconscious Competents" are who perform well but aren't of how they do what they do. Some very successful executives, for example, make brilliant decisions but can't explain to others how they reached their conclusions. "Conscious Competents" are excellent role models to have around, since they can explain how they do things. They make good coaches. Conscious competents also have "learned how to learn" and will continue to grow with new challenges and assignments.

Learning styles

Figure 6 shows a well-known typology of learning styles. Trainees are characterized on one dimension according to their preference for abstract vs. concrete stimuli, and on the other dimension according to whether they prefer an active or reflective learning process.

The most effective learners have developed their capacity to rely on all four modes. The most effective trainer not only tolerates but encourages learning in all four modes.

The "Accommodator" is a risk taker, an intuitive problem solver and likes to confront new experiences. The "Assimilator" is an opposite type, who wants to create integrative, theoretical models but doesn't particularly want to test them. The "Converger" easily grasps abstract concepts and also likes to test them through active experimentation. The "Diverger" is highly imaginative, good at brainstorming ideas and able to look at a situation from many different perspectives.

Pedagogical objectives/techniques

Figure 7 is basically the flip side of Figure 6. It refers to the sorts of teaching techniques most likely to satisfy the needs of each type of learner. But Figure 7 also helps the trainer relate instructional techniques to the learning objectives, i.e., the nature of the material we're trying to teach. The dimensions are similar to those in Figure 6. First we look at the degree of "concreteness" of the subject matter (Is it applied or theoretical? Are we teaching skills or knowledge?); then we look at the degree of participation and involvement required (active vs. reflective).

If we want trainees to study (but not yet practice) some applied concept, we're aiming at a change in "Appreciation." We might rely on movies, cases, dialogue or discussion, allowing the trainees to remain relatively passive, watchful and reflective. If we're trying to impart straight facts, information or abstract concepts, we're after a change in "Knowledge." Here we use lectures, readings, programmed instruction and other methods intended to engage the trainees' reflective thinking capacity.

If we want to build "Understanding" of theoretical material, we might try focused learning groups, argumentative discussion, experiments and analytical papers. These approaches involve trainees actively and often tap into their underlying feelings. To change actual "Skills and Attitudes" we probably want to provide the learners with concrete experiences—simulations or actual practice on the task, field projects, role playing, structured games and exercises, etc.

Trainee socialization

Will trainees be interested and cooperative learners, willing to accept and adapt themselves to the design of our program? Figure 8 classifies learners by the degree to which they accept the *peripheral* and *pivotal* norms of the learning environment—especially the experiential learning environment.

Peripheral norms are attitudes or

behaviors that are important but not absolutely necessary for trainees to adopt or embrace in order to benefit from training. They might include things such as prompt attendance, acceptance of the trainer's authority, neat and timely completion of assignments, etc.

Pivotal norms are things (assumptions, values, attitudes, etc.) that *must* be embraced for meaningful learning to occur. In an experiential classroom, pivotal norms might include becoming actively involved in activities, accepting the legitimacy of affective learning and integrating those feelings with cognitive learning, and being willing to engage in self-assessments while learning from observations of our own behavior and that of other trainees.

Combining the peripheral and pivotal dimensions gives us four types of trainees. "Game Players" are those who accept the peripheral norms but reject the pivotal ones; they show up for class but only pretend to participate. "Rebellious" trainees refuse to adapt to either set of norms; they don't even pretend to be getting anything out of this experience. "Creative Individualists" accept the essential pivotal norms but flaunt some of the peripheral ones. "Conformists" passively accept both types of norms.

Several useful outcomes emerge from looking at trainees this way, especially when we propose to conduct training that some people will regard as "touchy-feely stuff." The trainer is encouraged to identify and state the learning goals, the instructional process that will be used and the proposed norms (both types). This lets trainees know up front which behaviors are important to the trainer. It allows a psychological contract to be built between the trainer and most of the trainees. And those who refuse to endorse the pivotal goals (Game Players and Rebels) get a chance to either adapt or leave.

Evaluation outcomes

How effective was this training program? We want to evaluate the results of our training, but our evaluation efforts are necessarily limited in terms of time, resources and the level of sophistication we can build into our research designs. Consequently, we're forced to draw conclusions about the effectiveness of our programs based on limited evidence. These judgments may or may not be valid.

Figure 9 helps us understand the implications of our conclusions, based on the quality of the evidence we gather and how we use it. The first dimension refers to the conclusion we reach (Was the program *judged* to be effective or ineffective?). The second refers to the actual effectiveness of the program (Did it *really* accomplish its objective?).

Four classic types of evaluation conclusions emerge. We get a "True Positive" conclusion when our research tells us, correctly, that the program accomplished its objective. A "True Negative" is equally valuable from an evaluation standpoint: This program is not achieving its intended goal, and our research confirms that we have a problem.

The problems arise in the first and third quadrants. A "Type 1 Error," also known as a false negative, occurs when a valuable program—one that actually is accomplishing its objective—is scrapped or recommended for major surgery based on a faulty conclusion from our research. A "Type II Error" (a false positive) leads us to keep running a flawed or useless program that we have judged to be effective.

The fly in the ointment here is that the researcher cannot minimize the probability of both Type I and Type II errors simultaneously. Raising or lowering the standards of proof we require before we deem a program to be effective increases the probability of one type of error while decreasing the probability of another. For example, if we demand incontrovertible evidence that our management training courses are returning specific, hard-dollar benefits to the organization, we increase the likelihood that we'll get rid of some ineffective programs. But we also are more likely to scrap some genuinely valuable programs because our research design will fail to trace all the hidden dollars they actually are returning.

Cost-benefit analysis

How efficient and effective is this program in terms of dollars and cents? Figure 10 asks us to consider the cost of the program in relation to the benefits it returns.

High-cost programs that produce minimal returns clearly are excellent candidates for "Immediate Discard," while inexpensive programs that give us substantial benefits should be preserved ("Valuable Retention").

A low-cost, low-benefit program has "Questionable Value" and requires a judgment call: Do the benefits outweigh the costs or vice versa? Similarly, an "Expensive Benefit," i.e., a high-cost program that produces valuable results, demands that we consult our budgets and our alternatives. Would canceling this course release funds for several other promising programs with greater combined returns? If not, let's hang onto the Expensive Benefit. At least it's doing its job.

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FOUR STYLES OF ADULT LEARNING

Ever wonder why your supervisory-skills workshop goes over like a lead balloon with one group of trainees, then gets rave reviews from the next? The trainees' preferred style of learning could be the answer

BY LANE D. WARD

Why has your brilliantly planned and executed training session just been savaged on the evaluation forms turned in by several of your trainees? Why is it that no matter how you set up the workshop, some participants always are dissatisfied with their learning experiences? Take, as examples, these not-so-uncommon statements from four trainees who attended the same training session:

ainee #1: "I'm an adult and there's certainly a better way than what this ing offers. Let's look at the 'big picture' and come up with some better lusions."

Trainee #2: "How do I know that all training will work outside this lassroom? Let's try it where the ac- really is, on the job."

Trainee #3: "Listen, quit beating nd the bush. Tell it like it is. Let me know what I have to do, show me to do it and I'll get it done."

Trainee #4: "I like what you're tell- me in this training session. It makes sense. But I think I have some s that will work just as well. Let's look at what we're all doing on our , discuss the positive points of each individual and get the job done rding to our own best talents."

Every one of these participants s to be trained differently. How you overcome these problems and better training to more people for less money? By addressing the fact that adults have particular learning styles with which they are most comfortable and to which they tend to be most receptive.

To fine tune training programs—and make them effective for adult learners—trainers must do a better job of understanding these individual differences. Although the identification of distinct learning styles, like behavior styles or leadership styles, is not a recent discovery (see editor's note), much of the literature on adult education or andragogy might lead you to think that all mature-thinking individuals like self-paced, self-governed learning strategies. This is not always the case. Adult-learning styles differ and your methodological decisions will meet with greater acceptance if they reflect those differences.

Typical adult-learning styles can be broken down into four profiles: idealistic, pragmatic, realistic and "existentialistic." Careful analysis of these characteristics can help you match your trainees' learning styles with the appropriate training methodology.

The idealistic learner

The *idealistic* adult learner is the builder, the thinker, the reasoner, the one who likes to discover the important characteristics of job or performance competencies. Idealistic learners are typically offended by training programs that are restrictive, structured in nature, or "tell" them what must be done. In general, they feel that they are being treated like children when they have to submit to step-by-step detail. They also typically balk in trainer-centered environments, especially those that hint at being autocratic and manipulative or those in which the trainer comes across as a "know-it-all."

Therefore, the idealistic learner is most receptive to self-paced training that allows time for discovery and expansion of the training content (see Figure 1). These people tend to like group discussion, sharing, self-appraisal and evaluation, goal setting and democratic involvement. They enjoy identifying and discovering for themselves the skills necessary to do a job.

FIGURE 1
SAMPLE TRAINING METHODOLOGIES FOR THE IDEALISTIC LEARNER

- Discussion
- Democratic Planning Groups
- Case Study
- Problem-solving
- Goal Setting
- Discovery
- Inquiry Training
- Interactive Video Instruction
- Role Play
- Lecture
- Quality Circles
- Critical Incident
- Brainstorming
- Debate
- Reading Assignments
- Parables

This type of training typically will be based on deductive reasoning which is stimulated through methodologies such as case studies, interactive video, and somewhat controversial situations requiring intense problem-solving and resolution skills. This does not mean that an idealist-based workshop should have unidentified objectives or job competencies. But it does mean that adults with idealistic learning styles should be allowed to discover those skills for themselves.

The pragmatic learner

"I'll believe it when I see it" is the credo of the *pragmatic* learner. This person assumes that relevant learning takes place only when it occurs in the environment where it is to be applied. That is, "Unless you teach me the skills of my job where my job really takes place, I am not sure that the laws, rules and information you give me will really be applicable."

As far as pragmatic learners are concerned, the situations in which they work are unique. Therefore, training programs which require them to leave their job environments and to retreat to a classroom setting are generally perceived as foreign to the "real world." Pragmatic learners also tend to have significant difficulty in "transferring" skills from one setting to another. This tends to make them uncomfortable with off-the-job training sites, packaged training programs and statements such as, "Here's how it worked in Department B," or "This is how they do it in Organization Z."

The best training methodologies for these learners include a heavy dose of hands-on experience (see Figure 2). Their confidence, trust and eventual application of job skills will increase with on-the-job training, coaching and mentorship programs, custom-designed development programs and simulations that are specific to their jobs.

FIGURE 2
SAMPLE TRAINING METHODOLOGIES FOR THE PRAGMATIC LEARNER

- Custom-designed, Job-specific Training Materials
- Simulation
- Role Play
- Value Clarification
- Job-related Games
- Individualized Instruction
- On-the-job Demonstration and Practice

FIGURE 3
SAMPLE TRAINING METHODOLOGIES FOR THE REALISTIC LEARNER

- Goals Identification
- Programmed Instruction
- Behavior Modeling
- Job-description, Competency Identification
- Simulation
- Role Play
- Video and Computer-Assisted Instruction
- Off-the-shelf Training Materials
- Examples/Non-Examples
- Question/Answer
- Audiovisual (showing "how to" procedures)
- In-class Demonstration and Practice
- Reading Assignments (emphasizing "how to" procedures)
- Testing/Feedback

The realistic learner

Learners with the *realistic* profile are very "time-efficient." They want fast-paced programs that are void of "warm fuzzy" human-relations activities. To realistic learners, getting-acquainted and team-building exercises are time consuming and difficult to tolerate. These people are often low in interpersonal skills, but highly motivated in doing what they are told or what they have been trained to do. Discovery experiences, intellectualization, long hours with others in problem-solving or group developmental-type activities are generally ineffective in getting their attention and genuine cooperation. If your training approach is not in tune with realistic learners' style, you will hear comments like, "Let's get on with it. Just tell me what needs to be done and let's do it."

The training design best suited for realistic learners (see Figure 3) is straightforward and based on "hard, fast data." They are most receptive to structured, programmed instruction that has explicit goals and well-defined outcomes. For these learners, "how-to" workshops, computer-assisted instruction and behavior modeling are generally very effective approaches. Typically, programs that are systems- or procedure-oriented and competency-based, with logical cause-and-effect relationships, also will be warmly received.

The existentialistic learner

The people I choose to call *existentialistic* learners demonstrate high regard for their own and others' peculiar strengths and abilities. Their learning style is based on the belief that there are many effective ways to produce the same results. They learn best from training experiences that rely on inductive reasoning, are based on situational or contingency theory, and that support the assumption that no one way is the "right" way.

Existentialistic learners are typically products of the '60s generation—people who demand a voice in the decisions that affect them. These are the individuals who most appreciate training sessions that stress human relations—programs which show understanding, sensitivity and respect for others' ways of doing things.

FIGURE 4
SAMPLE TRAINING METHODOLOGIES FOR THE EXISTENTIALISTIC LEARNER

- Team Building
- Group Dynamics
- Value Clarification
- Personal Goal Setting
- Expectation Theory
- Interpersonal Games
- Inductive Reasoning
- Contingency or Situational-based Competency Design
- Transactional Analysis
- Quality Circles
- Individualized Instruction
- Participant Presentations

In designing training programs for these learners, you should perform extensive needs analyses and base your programs on clearly defined outcomes and expectations. Let existentialistic learners share experiences (see Figure 4). Allow them to identify and develop their own particular strategies for best accomplishing job objectives.

If you are careful to identify the objective that existentialistic learners should shoot for, they will reach it in their own ways. When given the freedom, these learners do well at achieving goals: They like to "prove themselves."

These learners also prefer training programs that encompass the "whole" individual. A training program directed at overall professional development, career development or quality of work life is likely to produce a better response than a program which focuses on on-the-job competencies.

Now what?

Naturally, very few learners will fit snugly and entirely into a single category; there are qualities of each of these learning styles in everyone. Nevertheless, people feel most comfortable with a training approach that deals to their long suit.

From this brief description of the four adult-learning styles, you will be able to identify the group represented by each of the trainee statements quoted at the beginning of this article. (If you are an *idealistic* learner, you probably are tempted to go back and do so immediately, unwilling to risk the possibility that if you keep reading, it may be spelled out for you.)

A few commercial instruments are available to help you identify trainees' learning profiles (see editor's note), though not the specific profiles outlined here. A review of adult-learning literature and research will help prepare you to "spot" individuals who demonstrate particular styles. A thorough preassessment can determine the dominant learning style of each participant in your training programs.

Obviously, the degree to which the trainer's sensitivity toward individual learning styles can produce more effective training will depend upon the flexibility and options available to the trainer: *Can* you split up this group of trainees and assign them different learning tasks? If not, is the group small enough that you can give individual attention to its members? Do you have a real choice of media and methods with which to handle the training task at hand?

In the long run, however—regardless of your options for any *particular* training challenge—the better you understand these adult-learning styles and match them to your training designs, the sooner you will improve your programs and "do better, for more, for less."

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FACT AND FICTION ABOUT INDIVIDUALIZED INSTRUCTION

ost instruction that is labeled 'individualized' really isn't

BY MICHAEL MAGINN

"Individualized instruction? You've got to be kidding," said the executive when the training director proposed a new product training course. "That stuff puts everyone to sleep. Herd those new hires into the training center for a couple of weeks and give 'em a little spirit."

And so it goes. It's no secret that individualized instruction is still not lly accepted or understood by many decision-makers. The question is why h a widely used, versatile method of instruction has a tainted reputation in management circles.

What do you say in response to an utive who objects? You might counter with "But individualized in- ction is perfect for this new course. The content is filled with details and , and you know how incredibly ell *that* goes over in a classroom. It's ect for home study. And as for our technical manuals . . . well, if I were fat, no one would pick me up her."

You'd be making a good point. For detailed information that needs to be ieved or accessed from time to time before it is transferred to memory, vidualized instruction is the key. Relegate to the classroom those nebul- process skills like getting along your manager, answering cus- er objections, and persuading your to hand in time reports when y're due. These are best taught by playing, group discussions, case ies, and the like.

"There's nothing *that* wrong with ssrooms," says the executive. "I ned a great deal in them."

"And there were many others," you add, "who were lost because the structure and logic of a group lesson were dropped, never to be picked up again. Individualized instruction allows slower students a chance to succeed, a chance to take their time to get the Big Picture. Builds character, self-discipline, too, especially if you tie in some visible reinforcement system when the course is complete. At least, that's the feeling you get from talking to the current proponents of this method," you comment, "even those in the public schools."

"Thunderation on the public schools," your boss exclaims, rising slightly out of his seat. "That stuff is still the best cure for insomnia. Who learns from that programmed gibberish anyway?"

Why do executives protest so much?

Mistaken Identity

One of the by-products of the enthusiastic wave of instructional innovations which emerged in the early 1960's was programmed instruction. Using principles based on operant conditioning research, B. F. Skinner's disciples designed instruction which rather rigidly adhered to three cardinal principles: 1) student participation, which meant "emitting" an active response to a stimulus (usually a blank word to be completed in a sentence); 2) immediate feedback as to the correctness of the response (usually found in a response column under the familiar cardboard answer cover-upper); 3) small, bite-sized chunks of information which contain the one stimulus required for the simple expected response. Crowder subsequently developed a format for branching programmed instruction which used a scrambled text approach, leading students who answer multiple-choice questions to remedial or "Whoops, wrong answer" pages.

Needless to say, properly designed programmed instruction, either linear (Skinnerian) or branching (Crowderian), are effective means of instruction. However, because of the time required to produce instruction true to the rather strict principles of Skinner or the ever-entangling network of Crowder's scrambled pages, fill-in-the-blank counterfeits became popular. Hundreds of "programmed instruction" companies were formed by entrepreneurial educators. Unfortunately, many of the products were less than perfect. Most of them were designed by erasing the key words in a sentence and rewriting them in the page margin. Ideally, good programmed instruction, validated on a specific population, takes about 100 hours of design time for one hour of instruction. Since few organizations can afford that type of process . . . well, corners were made to be cut.

What curdles the disposition of many middle-aged executives at the whisper of individualized instruction is the memory of *programmed* instruction which they probably studied in the training programs for their first jobs, back in the early 1960's when PI was the rage. Often, what people remember about PI is boredom, rushing to finish, reading reams of hard-to-read materials, and feeling vaguely like a pigeon in a box.

So, when you hear an executive object to "individualized instruction," find out if it is "programmed instruction" which causes the bad memories.

"Well, if it's not PI, what is it?" asks the manager.

What Is Individualized Instruction?

To be sure, programmed instruction (linear or branching) can be used by individuals studying by themselves. However, these forms have evolved greatly over the past decade and a half, incorporating some new techniques and methods indicated by educational research. Today, linear and branching programs can be considered antecedents to a whole category of self-study methods which are systematically planned, contain elements of good instructional design, and which attempt to motivate the student as he learns.

In state of the art design for individualized instruction, more than one medium is often used. The programmed instruction era found a plethora of instruction usually delivered by written materials or (ugh!) teaching machines.

Today, many educators agree that "programming" visual materials alone is difficult at best without some type of supporting medium. For example, a videotape containing narration or case dramatizations can present the elementary concepts behind sophisticated and detailed material. A workbook, designed to interweave between video segments, provides reinforcement, explication, and expansion as well as problem-solving exercises, formative evaluation, or diagnostic tests. This same format can be used with audiotapes and workbooks presenting conceptual information on audiotape immediately followed by a corresponding workbook section filled with structured detail. For other types of learning, audiotapes can provide "talk-through" instruction for a student sitting at the console of a computer or at an engine lathe.

This type of instruction, no matter what the format or medium, should contain the "Basic Three" elements of Skinnerian PI mentioned earlier (active participation, immediate feedback, and small steps or "chunks" of information) in addition to many other principles shown effective by research. Some examples: 1) *Repetition*, the single device that over 75 years of educational research has clearly identified as foolproof; 2) *Direction of students' attention* to certain parts of a visual or to elements of a spoken passage; and 3) *Preparing the learner for instruction* — telling him what you're going to tell him. The alternatives to frames and branches are limited only by the imagination and resources of the training manager or instructional designer.

The myth of individualized instruction as a cheap, fill-in-the-blank method is no longer valid. In fact, as long as the design elements of effective instruction can be built into a program, there is no reason why humor, drama, and other motivating devices can't be used as long as they don't interfere with the instructional content delivery. However, it would be wise for the individual trainer to assess his or his staff's ability to write comedy or drama. Amateurish attempts at humor can be disastrous.

Return on Investment

"Okay," your executive says, "I didn't understand everything you said, but it sounds good. You're the expert. How much is it going to cost?"

Congratulations. Your executive is about to invest a considerable amount of money and resources. You should be prepared to indicate how he will be *saving* money in each of the following areas:

- **One-time expense.** The development of a carefully planned self-study course involves a single expenditure which can be amortized over the projected life of the program. Bringing students to a training center, providing an instructor, and paying for logistical support, travel, and lodging expenses entails a recurring cost *each* time the course is given.
- **Number of students.** Reproduction costs for audiotapes, workbooks, and even filmstrips and videotapes—already relatively inexpensive—become more reasonable as the quantities increase. With group or lecture instruction, the number of students is usually restricted, which means the course may have to be offered more than once.
- **Standardization.** The content is always the same. The only difference will be the experience the student brings to the course and the rate at which he progresses. The problem with group study or even the popular "road show" lectures given at branch offices by a singularly gifted teacher is that it is different each time it is given. While some may feel this "tailors" the instruction to the audience, valuable material is lost to digressions, time pressures, personality problems, etc.
- **High Access to Information.** Because the student usually retains the self-study materials he uses, he will be able to retrieve the *entire* course for review or for use on the job at any time. Also, class scheduling problems (i.e., having personnel in the field waiting several months for a course opening) are eliminated. Individualized instruction allows for flexible scheduling.
- **Time Savings.** Probably the most encouraging research finding involving individualized instruction from an economic point of view is that use of this medium saves a great deal of training time—sometimes up to 50 percent. And, these time savings translate into redirection of man-days for both students and instructors. Put another way, less training time means less time away from the job.
- **Portability.** Certain types of individualized instruction can be taken home by the student or used at a work station, which provides for greater flexibility in implementation. In some cases, this may even be motivational for the student.

"Well, now, Boss," you say with a breath. "Just how lucky can you get? All that time and money saved through a simple format change. Plus, the student gets a chance to work where he wants, at the speed he wants, and he can go through the course until he's got it."

If your executive is like many, he'll have learned his lesson, tailored, as it was, to his individual instructional needs.

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THE VALUE OF INDIVIDUALIZED INSTRUCTION

More than a few trainers still confuse individualized instruction with programmed instruction

BY MICHAEL MAGINN

I think I can convince you in the next several hundred words that individualized instruction—as it is commonly used—is hardly individualized at all and is not the universal solution to training it was once touted to be. However, the fault may not lie in the *concept* of individualized instruction. Later in this article, I'll offer several suggestions on how to design instructional materials that will be effective with the greatest number of people. But first, let's talk about the shortcomings of the system. Bright learners, for instance, are turned off by a steady diet of individualized instruction or by remedial sections which cover material designed for the low-ability student. Criterion test which act as the "final exam" of many individualized programs are often too easy, and even slow students learn how to detour the work of the course, flipping through carefully planned exercises and reviews.

Students who have difficulty concentrating on a single task for more than a brief period, who depend heavily on instructor reinforcement, and who are not well motivated to complete the program will get less out of individualized instruction. In fact, educators are not clear about the effects of individualized instruction on the long-term motivation of all types of learners. And, despite the savings in time incurred through the use of individualized instruction, this approach produces the same level of learning as other methods. In other words, individualized instruction, designed by carefully defining objectives and determining strategies and methods of approaching a topic, does not necessarily teach better than a good, well-prepared classroom instructor.

Finally, the idea that individualized instruction is "individualized" is slightly out of focus. To be sure, individuals study these programs independently at their own pace, retrieving and reassessing information as material is assimilated, much like a graduate student reading and translating a poem in Middle English. Independent study, yes. Self-paced, yes. Individualized, no.

A great deal of attention has been paid in the past five or six years to instructional materials which are in some way matched to an individual's abilities, aptitudes, or even personality characteristics. This focus is based on the notion that what is "good" in terms of instructional method for one student is not so "good" for another. This scheme of matching instruction to individual "styles" is intuitively appealing and would certainly tend to eliminate some of the shortcomings of individualized instruction. For example, match an extroverted student with self-study materials which lead him to self-directed research or discussion with tutors or even fellow employees or students. Present the introverted student with solitary tasks which would lead to the same objectives the extroverted student obtains.

Researchers have attempted to match a wide range of individual characteristics—from general mental ability to home environment quality and "need for nurturing"—to scores of different instructional methods. Despite the intuitively appealing idea behind this approach, only a handful of research studies have shown that some methods are significantly better for some students than others (Bracht, 1970). As it turns out, good readers would probably do better than poor readers no matter what the method of instruction used. The same can be said for students of high mental ability. Research in this area—called aptitude treatment interaction—has still to provide clear guidelines for designers of instructional materials.

Yet, the problem remains: What can be done to remove some of the instructional drawbacks which are associated with individualized instruction, given the differences between individuals? Or, to put it simply, how can instructional designers design better individualized instruction programs?

One proposed solution is interesting. Instead of designing instruction for specific types of student characteristics, let the individual student select the method or medium of instruction he prefers, all of which can be designed to meet the same instructional objectives. Self-ratings of this nature appear at first glance to be an easy answer. In reality, they are ephemeral and should be considered analogous to a physician asking a patient what drug he would like based solely on its flavor.

Several studies have shown that preference self-ratings for a specific "favored" medium make no difference in learning (Dequin, 1971). Further, to suggest that simply because a student thinks he prefers to watch movies rather than read books we should bombard him with visual stimuli is dangerously oversimplifying the question of selection of media and the design of instruction. How do we "bombard" with visual stimuli if we are teaching the student to speak another language? How do we tingle the auditory receptors of a student who prefers to listen if the instructional task is to teach him to perform a ski turn, for instance. Or, how do we convey the concepts of philosophy through physical involvement for those kinesthetically-inclined individuals?

Although preference for media or method may not be the answer to individualizing instruction, a review of educational research (Allen, 1975) has revealed that certain techniques or design elements appear to enhance the teaching effectiveness of the materials for students with different mental abilities. This isn't to say that low-ability students will do better than high-ability students using one set of instructional materials rather than another. The Bracht review of aptitude treatment research cited earlier shows that this type of interaction is rare, if existent at all. Rather, there are certain separate devices which can be employed to boost the individualized learning of these different types of students.

According to Allen's review, students of low mental ability, as measured by a standardized, validated psychological test, would benefit from materials which:

1. Supplant or replace covert mental operations (i.e., provide "thinking out loud" support). Visually, this can be accomplished by zooms, slow motion, or freeze frame effects. Graphically, this can be represented by flow diagrams, explosion drawings, and multi-perspective views of an operation.
2. Arouse the curiosity of the learner by providing intriguing statements about the material. Prepare him for what he is about to study by *explicitly* telling him what he is expected to do after the program.
3. Organize the material so the logical structure is clearly evident; provide outlines of this structure so the student can determine exactly where he is in the course's logic pattern.
4. Provide attention directors which point out or emphasize the idea or visual message you want the student to get.
5. Provide for active responses from the student such as answering questions, adjusting instruments, walking through a procedure, or checking items from a checklist.
6. Raise questions along the way, recapturing points you made before, showing how previously learned information fits into a later step.
7. Provide for low pacing of the materials and build in repetition. However, pacing should not be too slow or too repetitious or you risk boring the student.

For students with high mental ability, measured once again by a standardized, validated psychological test, individualized instruction materials should:

1. Be perceptually rich in multimedia images or messages, developing the organization of the content rapidly.
2. Place a requirement on the student to organize materials, hypothesize, abstract, or somehow manipulate content material.
3. Provide for a higher density of information to challenge the processing ability of the student.

Even if these enhancements were made to individualized instructional materials, eliminating some of the boredom and "skipping around," there would still be logistical and developmental problems to contend with. Two sets of materials for the same set of learning goals and objectives would have to be designed and produced. Students of different abilities would have to be identified. And there can be considerable implementation problems if each group discovers which category it represents. Certain individuals may resent being placed in a low ability category, even though the material has been specially designed to help them achieve better. Finally, a management system of administering the program would have to be designed to correspond to the needs of management. Although these guidelines for high and low ability students are helpful, they might not be feasible—if dual programming is contemplated—in some instructional situations.

It has been said that trying to please everyone is the key to failure. It's also been said there is no such thing as an "average" person to whom model characteristics apply. In spite of this, can the trainer provide a single set of instructional materials that will be effective with most people? There are some guidelines:

- Concentrate on the similarities in your student population rather than the differences. Use trade jargon, if appropriate. Be candid about the practicability of procedures. In short, relate the truth about the situation and content you are trying to teach. Let your materials reflect the "real world" as your students are experiencing it and capitalize on shared experiences.
- Provide for some type of tutorial feedback—a person to talk to or to call up who will answer or ask questions. It this option is elected, make sure the tutor is closely familiar with the course material.
- Design the material so the student is required to "emit" the behaviors you want him to learn. Provide exercises which move him off his seat, send him to ask someone questions, or to the tool crib for a device needed in the next section of instruction.
- Use repetition judiciously. Similar material should be dispersed throughout the program in different contexts, if possible. Repetition is probably the best tool a course developer has at his disposal, but don't overdo it.
- Use examples. Start off with very easy ones and gradually add complexity.
- At the end of a course, provide the student with a "map" of what he has learned. Give him a tip sheet, a job reference card, laminated flow charts. Leave him with concepts in his mind and details at his fingertips.

Finally, before you start to develop an "individualized" course, decide whether the material you want to teach is suitable for individualized instruction. Although touted as a versatile tool, individualized instruction is not a rubber stamp approach for all subject matter. There are some situations which demand group interactions such as role-playing, simulations, or case studies. Even some old-fashioned lecture-discussion may be infinitely better than individualized study in some cases.

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BUILD OR BUY?

Should you design a training course in-house or go shopping for a packaged program? Some thoughts for trainers and managers new to the game.

BY TOM COTHRAN

The dilemma is an increasingly common one in organizations large and small. You've diagnosed a problem and decided that the answer will involve training for some group of employees. You've determined who needs to be trained and what it is they need to be trained to do or do better.

The question is: Where do you get the training itself? Is it better to build your own instructional programs, or should you buy one "off-the-shelf" from one of the many training and consulting companies to be found around town—or around the country?

The build-or-buy issue is rarely a simple, clear-cut question. More often it's a dilemma. On the one hand, the task of designing, administering, evaluating and continually fine-tuning a training program, regardless of its nature or complexity, is both time-consuming and expensive. On the other hand, the idea of simply buying something in a box—one size fits all—doesn't always inspire comfort or confidence.

What do you need?

Many experienced corporate trainers say that the answer often lies in combining the two alternatives: Buy a basic package from a training vendor, then develop your own tailor-made supporting parts—often in cooperation with the vendor—to make the purchase suit the needs of your organization and your trainees. It still takes time and money to sift through the growing array of packages in the busy training marketplace to find the right one, and then follow through to come up with a finished program that does the intended job. But even when you add the cost of the package itself, this route usually is less expensive (if you figure time as an expense) than building a good training program from scratch.

"I think the basic factors that determine what is best are, first, what exactly do you need?" says Amelia D. Rego, director of training at American Savings Bank in New York City. "After that, you look at what's out there [in the marketplace], how easily it can be customized to your needs and, finally, whether you have the budget."

If you find a packaged program that meets your needs, if it can be customized easily, and if you have the money in your budget, Rego says, then you're better off buying. "If you don't have the money or there isn't anything available, then you're probably better off building rather than buying something that isn't exactly what you want." But in some cases, she adds, you may *have* to buy—even if you don't like all the material—because it will turn out to be less expensive than creating the program in-house.

Going outside

"Many times the main consideration is time," says Marshan Mason, manager of training design for Avon Corp. If you're building your own program, "you have to allow for research, development, creating a pilot, evaluating the pilot, revising and evaluating again. It takes a lot of time."

If the training you need falls into a generic subject area, packaged programs can be significant time savers. "A lot of generic programs have proven to be very effective," Mason points out. "For example, if I'm putting together some general supervisory training, I would probably purchase it on the outside. Someone else has already invested the time needed to create and evaluate the program, and I can also talk to people who have used the program to benefit from their experience."

In terms of cost, going outside is frequently cheaper—although sometimes the savings are not immediately obvious. Charles J. Wolfe, assistant director of management education for the Hartford Insurance Group in West Hartford, CT, says the key for the Hartford was determining that eight hours of research and development were required for just one hour of quality instruction. (And plenty of instructional designers would say that 8:1 is remarkably quick.) Wolfe figures he saved a lot of money by buying a packaged program called "The Supervisor's Survival Kit" at $15 per trainee. "It's almost impossible to beat that doing it internally," he says.

"When we go with a vendor," Wolfe adds, "the only additional cost we incur is the time needed to develop our wrap-around for the package, which we see as a necessary investment." The program's content may be fine on its own merits, he notes, but it still has to be well-suited to the company and its people.

Custom jobs

Many situations are best addressed by a combination of internal and external resources, a tactic that allows a company to extend its own subject-matter expertise by taking advantage of a training vendor's design experience. To develop your own training, you often need experts within the corporation to design and teach the program. If they're not readily available, or if they're unwilling or unable to spare the time, company materials can instead be given to a consultant to use in creating a more specifically tailored program than might otherwise be possible.

"We're a financially oriented company," says John Corridan, director of personnel development for W.R. Grace & Co.'s Industrial Chemical Group in New York, "but we're not an organization with a huge training staff. There's a basic requirement in our group that everyone be able to talk about finance. To meet that training need, we contracted with an outside organization to develop a finance course for our nonfinancial personnel."

Corridan turned to a Boston consulting firm for Grace's two-week, executive-level program. Using Grace's own balance sheets, the vendor, Harbridge House, developed a course that includes case studies from the company's actual experiences. "It emphasizes finance," says Corridan, "but in our own way."

For similar reasons, but for a radically different audience, American Savings Bank combined internal and external resources for a course in basic English. The target group in this case, explains Rego, was entry level employees who did not speak English as a first language. The bank combined on-the-job materials and experience with the involvement of an English teacher from Bow-Manhattan Community College to develop a two-day course, but with the days about a month apart. In the interim, the employees were asked to study materials and write an autobiography in English.

"They learned parts of speech, vocabulary, how to put your thoughts down on paper," says Rego. "Like many large corporations, we found that sometimes our people can speak fairly good English, but can't write it. In our kind of a service business, our people need to have those skills."

Whether you're working exclusively with outside programs or combining internal and external resources, there can be a risk in using more than one package or vendor, cautions Wolfe of the Hartford. "There are a lot of different theories out there," he explains. "If you use one now and come back in a month with another theory, people will question your value to the group."

Wolfe uses an internal quality-control panel made up of people who work in the area targeted for training. The group screens new material and helps determine whether it's compatible with what has been taught before.

Working from the inside

Sometimes resources or the training situation itself dictate a reliance on internal sources of training.

Research, development, creating a pilot, evaluating the pilot. . . . It takes a lot of time.

"When I'm trying to train employees on something peculiar to our business," says Mason, "such as performance appraisal training, I develop it in-house." The culture of the company, she explains, is a primary consideration in such cases; an internally developed program is more likely to reflect key organizational values, and lend consistency and continuity to the company's appraisal practices.

Calling in an outsider can be a sensitive matter, especially in a smaller, privately held company faced by larger competitors, or one with industrial secrets to safeguard. Such companies often display an understandable reluctance when it comes to divulging tightly controlled information to a consultant or vendor.

A case in point: Before she went to Avon, Mason was manager of curriculum development for sales and systems training at Data General Corp. In that job, she much preferred developing programs internally to bringing in people from outside the organization. On several occasions, she says, she bit the bullet and built her own, even when she knew the marketplace contained programs similar to the ones she was developing.

"The sensitive nature of the company's business was the issue," she says. "For example, we built our own communications protocols so we could protect our information and make it specific to our audiences."

When outside consultants were hired to develop or deliver a training program, she adds, the arrangement was under a tight contract: "They were under oath, if you will, and had to sign for all documents given to them."

Mason also worked for the American Management Association, an organization with a number of proprietary materials. When an outside consulting firm was brought in at one point to help develop a computer-based simulation, she recalls, "every step of the way they had to sign and re-sign nondisclosure statements."

"A consultant becomes in some ways an organizational therapist," observes Wolfe. "If you're training for skills, there's no issue. But when you're consulting at a high level in the organization, you find yourself becoming a sounding board."

In those cases, according to Wolfe, the consultant must have the experience and maturity to know when to listen, when to respond with a question or recommendation—and when to admit that he or she is not the right person to solve the problem.

"That kind of consulting," he maintains, "is what earns and justifies the client's confidence and respect."

Adaptability, both in the organization and in the outside vendors with which it deals, may be the ultimate consideration in resolving the build-or-buy dilemma. Whether developed internally, externally or through a combination of inside and outside resources, the training program in question must be able to meet very specific needs in ways directly appropriate to the organization.

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AN OUTLINE FOR TEAM BUILDING

Cooperation, collaboration and communication are the ingredients of an effective team. Here's a recipe

BY CYNTHIA REEDY JOHNSON

According to *Webster's Ninth,* a team is "a number of persons associated together in work or activity: as a group on one side (as in football or a debate)." In other words, when one person cannot accomplish a job and several individuals must cooperate to fulfill a mission, you need a team. The better the cooperation and coordination among team members, the more efficient the team.

FIGURE

ASSESSMENT SCALE: AREAS OF STRENGTH AND WEAKNESS

1. Goal clarity and sense of purpose: Are the mission(s) and direction(s) of the team understood and priorities agreed upon?

1 2 3 4 5 6 7
Serious Weakness — Significant Strength

2. Role clarity and conflict: Do members know what others' assumptions are of what they should be doing?

1 2 3 4 5 6 7
No — Yes

3. Is there agreement between your assumptions of what you should be doing and the expectations of others?

1 2 3 4 5 6 7
No — Yes

4. Conflict management.

1 2 3 4 5 6 7
Ineffective — Effective

5. Participation and influence in decision-making: What is the quality of decision-making on your team?

1 2 3 4 5 6 7
Ineffective — Effective

6. Assess the patterns of participation and influence in your decision-making.

1 2 3 4 5 6 7
Unsatisfactory — Satisfactory

7. Leadership.

1 2 3 4 5 6 7
Ineffective — Effective

8. Group support and cohesiveness.

1 2 3 4 5 6 7
Weak — Strong

9. Group standards: What quality of performance does your team find acceptable?

1 2 3 4 5 6 7
Shoddy — Excellent

10. Are the limits of appropriate interactions with clients clear and agreed upon in your team?

1 2 3 4 5 6 7
No — Yes

11. Analogy: Compare your team and its functioning to an animal or machine.

Effective teams share several characteristics. They operate with clearly defined goals and expectations. Their leaders lead by example, not by virtue of job titles alone. Their members are allowed a great deal of personal freedom, as long as they get the job done. They make decisions in groups. They share information. They set high standards for themselves. They are disciplined. They acknowledge one another's contributions and support.

But before effective teams can be developed, the organizational environment itself must foster teamwork.

According to John Parr, director of the Center for Public/Private Sector Cooperation and associate professor in public affairs at the University of Colorado at Denver, an effective organization must:

- Share a vision or sense of purpose that all its employees can articulate.
- Develop a structure appropriate for the organizational environment (e.g., a structure that works for a bank may not work for a fire department).
- Strike a balance between reason and intuition so that its employees are neither too oriented toward nor too disregarding of "hard" facts.
- Align employees so that everyone is going in the same direction.

Parr believes that this alignment occurs when management emphasizes personal performance and allows employees to fulfill themselves in their jobs. This emphasis also is the key to the team-development process.

Team development

Successful team building has far-reaching ramifications in an organization. Improve the way team members interact, and you improve their ability to solve problems. Better problem-solving means better efficiency in general. Increased efficiency tends to boost morale and productivity. It also helps to decrease stress, turnover and operating costs. And all of these improvements bolster the organization's public image. Once established, an effective team becomes self-perpetuating.

In *Task-Oriented Team Development* (McGraw-Hill, 1977) Rubin, Plovnick and Fry define four key

OUTLINE

- I. Preparation.
  - A. Stress the importance of attendance by all team members.
  - B. Arrange for a comfortable place to meet—away from the workplace, if the group wishes.
  - C. Minimize interruptions.
  - D. Use visual aids, including a flip chart or blackboard.
  - E. Agree to the number and length of meetings (e.g., six three-hour weekly sessions with negotiated additional sessions). Do not dictate specific amounts of material to be covered in a given time. Teams should distribute their time according to issues that are important to them.
- II. Introduction.
  - A. Purposes of team development.
    - 1. Emphasize the fact that you are there to help the group assess its operations—and change things if and how they wish to. You are not there to "do something to them."
    - 2. Introduce the idea that good teamwork improves problem-solving and increases efficiency.
  - B. Define a team. Don't assume employees understand the concept of an interdependent, cooperative working unit.
  - C. Discuss Rubin, Plovnick and Fry's notion that poor relationships within a team are the function, rather than the cause, of poor structure and unclear goals, roles and procedures. Bonner (see "For Further Reading" at the end of this article) discusses at length how increased interaction and participation can lead to better relationships.
  - D. Goals of team development.
    - 1. Clarification of goals, roles, procedures and relationships.
    - 2. Increased efficiency.
    - 3. A proactive rather than reactive mode.
    - 4. Work becomes more fun.
  - E. Ground rules.
    - 1. No blaming.
    - 2. No talking about people who are not present. (Members should ask questions and make comments directly to the person concerned: "I have this problem with you," rather than, "I have this problem with her.")
- III. Conduct a diagnostic assessment to define areas important to the team's interaction and to its tasks.
  - A. Have members complete the "Assessment Scale: Areas of Strength and Weakness" (see accompanying figure).
  - B. Compile individual scores on one sheet for a team profile of problem areas. The facilitator can do this during a short break or by direct verbal input from the team, depending on the trust level and size of the group.
- IV. Discussion.
  - A. Areas of strength and weakness.
    - 1. Clarify the nature of the problem.
    - 2. Ask the team to brainstorm possible solutions. (Use standard brainstorming rules, e.g., no disparagement of anyone's ideas allowed, etc.)
    - 3. Record the suggested solutions. No solutions should be eliminated now; whether or not they are workable is irrelevant at this point.
  - B. Clarity of goals and sense of purpose: Are the mission(s) and directions of the team understood and priorities agreed upon?
    - 1. Are organizational goals clear?
    - 2. Do organizational goals conflict with individual goals?
    - 3. Is it clear how to get to the goals?
    - 4. Does the team's communication style increase clarity?
    - 5. Can individual goals be meshed with organizational goals?
    - 6. Brainstorm solutions.
      - a. Goal checking.
        - 1. Don't argue over your route until you know where you're going.
        - 2. Define a "core" mission or reason for being.
        - 3. Have members write and share their ideas of the core mission. Record. Discuss after all ideas have been presented.
  - C. Role clarity and conflict: Do members know what others assume they should be doing? Do individuals agree with the expectations of others?
    - 1. Role clarity is a team responsibility rather than an individual responsibility.
    - 2. Don't assume clarity; check it out. Expectations of others may be written up individually and shared.
    - 3. Each member needs to feel his role is valued and recognized.
    - 4. Are members specialists or jacks-of-all-trades?
    - 5. What are members' overt (formal) and covert (informal) roles? Are these consonant, recognized and productive?
    - 6. Diagramming relationships may be useful.
    - 7. Using formal job descriptions as a starting point, look at how the descriptions relate to actual practice. What happens and how? What would be helpful for team members to know about someone else's job?
    - 8. Brainstorm additional solutions to clarify roles.
    - 9. What causes existing role conflict? Work overload? Inability to say "no"? Unnecessary

or inequitable chore assignments? Fear of failure or expectations? Hidden agendas? Attitudes? Burnout?

10. Consider solutions for conflicts: Negotiate roles? Use a mediator and written "contracts"?

D. Conflict management. Remember that conflict can be productive. When tasks are interdependent, conflict is inevitable.

1. Styles of conflict management might be discussed or even formally assessed, using a tool such as Marc Robert's Conflict Management Style Survey. Examples of different styles include smoothing over conflict, faking a solution, compromising and confronting.
2. Do team members' perceptions of themselves match others' perceptions of them?
3. How much trust exists among team members? Does the trust level improve or impair the way conflict is managed?
4. Brainstorm solutions.

Participation and influence in decision-making. What is the quality of decision-making in the team?

1. Do all members participate? Does the information flow allow for participation? Are members committed to discussion and decision-making?
2. Who speaks up?
3. What are the existing alliances?
4. Is there a need for more assertiveness? For more sensitivity?
5. Who wants to take responsibility for producing results?
6. Is there fear of appearing to monitor each other?
7. Is risk-taking encouraged or discouraged? Is failure tolerated and followed by support and guidance?
8. Is the pace of interactions difficult for some? Do things happen so fast that some members can't get their thoughts organized quickly enough to participate?
9. Do some members decline to participate? If so, the team loses their input and they may not be committed to decisions it makes.
10. Are meetings effective? Is there follow-up action?
11. Examine the soundness of the team's decisions and its ability and desire to implement them.
12. Brainstorm ways in which the team's decision-making process could be improved.

Leadership.

1. What leadership styles are used in the group? Do they fit the group's style?
2. Is there leadership by example?
3. Who takes responsibility and how effective are they?
4. Is authority granted along with responsibility?
5. Are individuals respected by leaders?
6. Do leaders give others plenty of latitude or freedom to do things as they wish as long as the job gets done?
7. Do members want their leadership to change or stay the same?
8. Can leaders negotiate with members to make these changes?

G. Group support and cohesiveness.

1. Do members recognize and respond to others' needs for support?
2. Does the group have its own symbols, jargon, etc.? Can they be developed?
3. In high-stress jobs, such as corrections and police work, members tend to turn inward to their own group for social as well as work functions. While this provides support, it can also foster isolation and create problems in outside relationships. Discuss the effects that close relationships and danger on the job can have on the families of group members.
4. Members should discuss ways in which they would like their individual needs for support to be met.
5. Generate ideas for action.

H. Standards and discipline. What quality of performance does your team find acceptable?

1. High standards lead to pride in membership and additional striving. But they must be attainable. Do this group's standards provide challenges *and* allow members to experience success?
2. Is complacency a problem? (E.g., does the group seem to have little incentive and motivation for risk-taking, creativity and change?)
3. Role playing may help diagnose a group's current condition.
4. Brainstorm ways the group standards can be altered to satisfy its members.

V. Solutions.

A. Solutions may have been decided upon or only entertained during the discussion.

1. In either case, review for feasibility, clarification and acceptance.
2. Assign someone responsibility for follow-through.

VI. Follow-up.

A. The team should decide whether it needs or wants follow-up sessions. Some groups elect to have occasional, ongoing sessions. Others feel further contact is intrusive.

variables in the team-development process.

- *Goals.* Individuals must understand and accept the goals of the group.
- *Roles.* Team members must know what others want and expect from them. Ambiguity in role expectations produces stress and hampers performance.
- *Procedures.* All members must know how to get work done together (e.g., making decisions, solving problems, managing time and conflict).
- *Relationships.* Put simply, people who like and respect one another usually work together more effectively than people who don't.

I developed an outline for a team-development program for workers in a correctional facility—basically, a prison for juvenile offenders. Traditionally, corrections has not been team-oriented, but hierarchical and authoritarian. So why try team building? For one thing, the military-type structure is resented by many of today's correctional workers, particularly in juvenile institutions. For another, working effectively with other team members is crucial in situations where an individual's safety may depend on a coworker; in prisons, the risk to life and limb is too great to accept fragmented or inefficient working teams.

The outline is easily adapted to virtually any type of organization. Because this program was developed for groups used to working in an authoritarian environment, the outline begins at ground-zero, so to speak, assuming little or no knowledge of team-building concepts among trainees. It does assume, however, that the person running the program has some basic experience as a trainer or group facilitator and is willing to do some homework.

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FOR FURTHER READING

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TRAINING FOR IMPACT

Is your training department judged by the number of bodies it runs through classrooms or by the results it achieves? Here's a step-by-step process to help you create a more valuable role for HRD

BY DANA GAINES ROBINSON

Ever hear of "training for activity?" You may not call it that, but undoubtedly its characteristics will sound familiar: Trainers spend most of their time in the classroom delivering programs; accountability focuses on activity—the number of programs conducted, the number of participants and so on; the training function is *valued* for the same things for which the department is held accountable—the number and variety of its programs; having a large course catalog becomes a real barometer of success.

Those characteristics are common among training departments. It also is common for trainers in such departments to "burn out" from all the stand-up training and begin to wonder about the value of their efforts: Are people really using the skills being taught?

There is an alternative. A human resources development department may have:

- Trainers who spend less than half of their time in the classroom.
- Accountability that focuses upon *results achieved*, both in terms of on-the-job behavior change and the organizational impact of the training.
- A function valued for assisting management in resolving business problems and/or maximizing business opportunities.

This second set of characteristics describes a results-oriented training department that is "training for impact," and while they may not be the norm at present, they certainly are part of HRD's future. Neal Chalofsky, national vice president for professional development of the American Society for Training and Development, reinforced that notion plainly enough in his editorial comments on ASTD's competency study for trainers. In the future, Chalofsky says, "Trainers will be responsible not only for learning, but also for making sure that learning is applied on the job. Trainers will be responsible not only for identifying training needs, but also for evaluating whether those needs are met."

Line management *is* demanding increased accountability from all functions, particularly staff areas which traditionally have been the most difficult to evaluate. The HRD profession, as evidenced by the competency study, *is* moving toward results-oriented training as a standard. There can be no doubt that HRD departments which demonstrate a track record of results meaningful to management will be those most able to gain additional resources. The movement away from activity and toward impact appears irreversible. Where to begin?

The "training for impact" model in Figure 1 suggests one approach. Developed over the past six years, it has been validated through its use in determining the results of sales training, supervisory and managerial training, customer-relations training and technical-skills training.

In order to illustrate the steps involved in the model, let's use a fictitious organization known as Nu-Karparts, Inc. Nu-Karparts, we'll say, is a wholesale company that supplies automobile parts to independent retail stores throughout the United States.

Step 1. Symptom or request for training

Training needs surface in many ways: Sometimes a line manager calls with a request; sometimes training is "mandated" from top management; often the HRD department itself uncovers a potential problem.

At Nu-Karparts, the director of distribution called the corporate training director to indicate concern over the growing number of customer complaints coming into his office from the retail stores (see Figure 2). These complaints suggested an increase in customer dissatisfaction and required a great deal of senior-level management time to resolve. The distribution director was certain that a training program he had heard about—one which instructed customer-service representatives in how to handle people—would be appropriate. He wanted to pilot-test the program in two distribution centers; granted positive results there, he would implement it in the other two centers.

Step 2. Identify client

Once a need has surfaced, the HRD department must determine the key decision maker for the project—the highest-level individual (or group of individuals) who has the power to make a go/no-go decision *and* has a need to be actively involved. This person or group becomes, in effect, the "client."

Generally, clients are people who a) are two or more levels above the learner, b) are in the learner's chain of command, c) approve any significant action regarding the training project and d) have the most to gain or lose from the success or failure of this effort.

Rarely is the client either the learner himself or the learner's immediate manager. It is also unusual for the client to be the company's training director. Together, the client and the trainer will be making many critical decisions regarding the training project. Ideally, they will arrive at these decisions in a collaborative, consensual manner.

At Nu-Karparts, the trainer assigned to the customer-relations project determined that the appropriate client group would be the director of distribution and the two distribution-center managers involved in the pilot. These were the people who had the most to gain or lose. After the training director discussed the advantages of a client team with the director of distribution, they decided to move forward with these three people as that team.

Step 3. Learner needs: Assessment #1

It is almost always unwise to respond to a training request based upon the input and perspective of just one person; the probability of an accurate diagnosis is very low. At best, the training department may wind up addressing some part of the true problem with modest results. At worst, the diagnosis may have been completely inaccurate, resulting in misplaced use of training resources and damage to the credibility of the training function.

A basic axiom of HRD is that before training resources can be appropriated effectively, a problem's *cause* must be determined. Only then can a decision be made as to whether the problem is something training can address. Information from multiple sources is critical to needs assessment to ensure that all relevant perspectives are included. Possible sources for data gathering might be:

Clients—Key decision makers already identified.

Learners—People who will participate in any training effort which results. Involving the prospective learners helps foster "buy-in" should training be identified as a solution to the problem.

Other interested parties—People who interact with the learners. They could be the direct managers or the employees of the learners. They also could be other staff or line personnel outside the chain of command of the learners. Finally, they might be customers or clients. Each situation determines what categories of people should be included.

State of the art—If someone requests a program in influencing skills, it is the responsibility of the HRD professional to research the field and identify the validated behaviors and skills required to become an effective influencer. We are not in the business of training others according to precepts and programs someone happens to *think* will work. We are in the business of identifying, building and delivering programs that produce behavioral skills which have been *proven* to work.

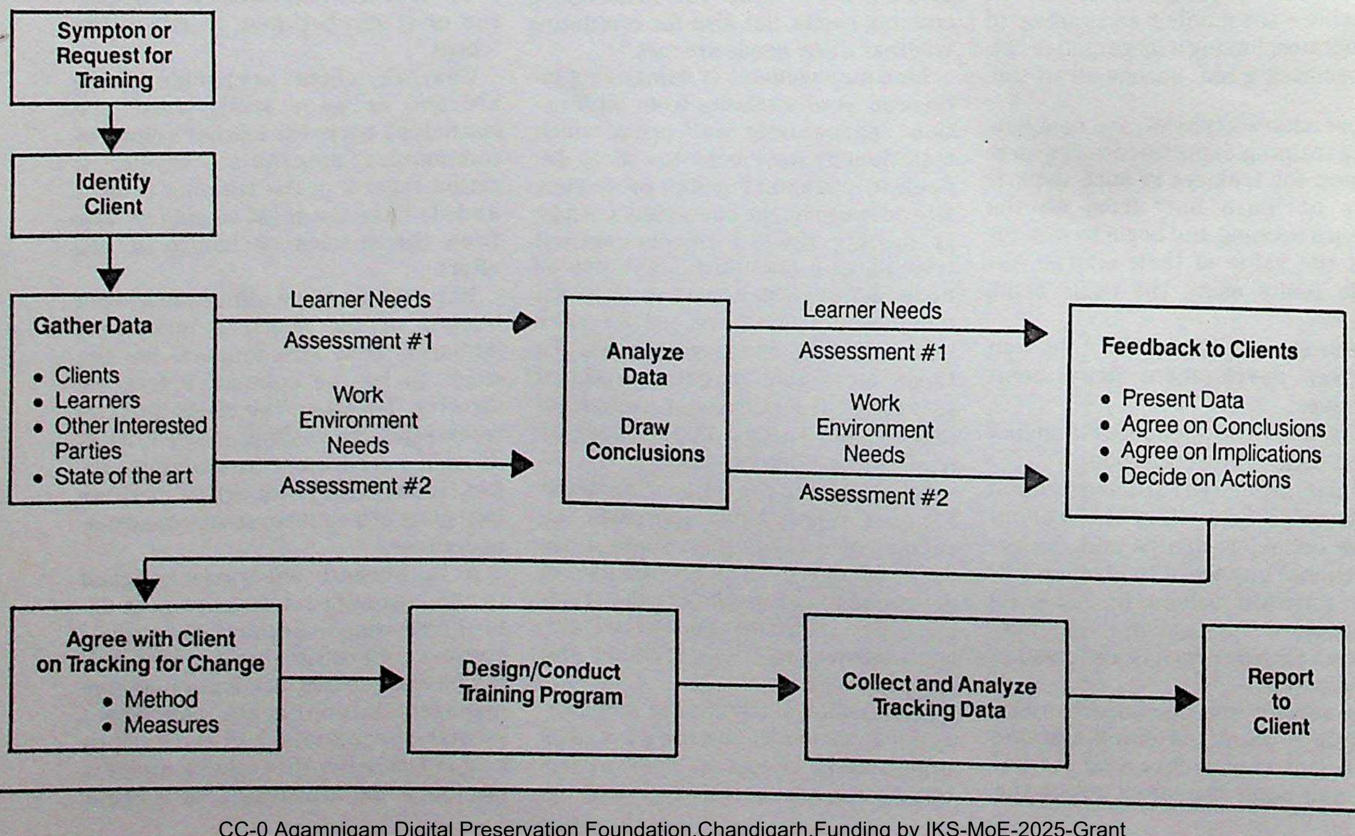
As Figure 1 illustrates, once information about the learners has been collected it must be analyzed, interpreted and readied for reporting to the client. During this meeting, the trainer and client must draw conclusions from the information. From these conclusions, implications must be determined: "Here's what we have concluded. So what?" The end result of the meeting should be an agreement between trainer and client as to what skills and knowledge, if any, will be taught to which groups of people within the organization.

At Nu-Karparts, the trainer conducted a needs assessment and reported back to the director of distribution and the two center managers. The data indicated the following:

1. Customer-service representatives (CSRs in the company's jargon) in the distribution centers were gathering information from customers in a variety of ways; there was no standard method.
2. About 12% of the calls taken each day were complaints. In a typical month, 22 of these complaint calls were escalated to the director and vice-president levels.
3. Most CSRs were not skilled in asking questions of customers and, therefore, were not getting complete and accurate information when they filled out complaint forms; 50% of the forms were filled out incompletely.
4. Seventy-five percent of the customers interviewed by the trainer during the needs assessment indicated that the CSRs seemed defensive when a complaint was made.

Based on this information, the clients and the training director agreed that CSRs should receive training in both telephone fact-finding skills and the use of empathy.

FIGURE 1. "TRAINING FOR IMPACT" MODEL



Sympton or Request for Training
Identify Client
Gather Data
• Clients
• Learners
• Other Interested Parties
• State of the art
Learner Needs
Assessment #1
Work Environment Needs
Assessment #2
Analyze Data
Draw Conclusions
Learner Needs
Assessment #1
Work Environment Needs
Assessment #2
Feedback to Clients
• Present Data
• Agree on Conclusions
• Agree on Implications
• Decide on Actions
Agree with Client on Tracking for Change
• Method
• Measures
Design/Conduct Training Program
Collect and Analyze Tracking Data
Report to Client

environment needs: ssment #2

the client and the HRD pro- have agreed upon specific objectives, a second diagnostic required if the goal is to long-lasting results on the Because such results occur the product of a learning ex- that is on-target and well- ered, and a work environment *supportive* of the new skills. A on either side of the equation long-term results will be im- ble to achieve.

the training department has deal of control over the learn- perience, it has virtually no con- the work environment. This e client/trainer partnership most critical and can really order to ensure that skills nsfer to the work environment persist over time, an analysis of ironment is necessary. In es- the HRD professional will be ng to answer these questions:

What, if anything, about the learn- selves will inhibit or enhance se of these new skills on the job?

What, if anything, about the learn- managers will inhibit or enhance se of these new skills on the job?

What, if anything, about the or- will inhibit or enhance the ese new skills on the job?

ollected, this information ust be analyzed, interpreted and reported to the client. By painting this type of picture, the trainer shows management what will happen if the work environment does not support the new skills—the results management desires will not occur.

At Nu-Karparts, the trainer succeeded in convincing management of the benefits of a work-environment assessment. Even if CSRs had the skills to fact-find on the telephone and to use empathy, they might not use those skills for reasons relating to the organization: The problem would remain and the time and money spent on training would be flushed down the drain. Therefore, the trainer conducted a second assessment to determine whether anything *might* prevent CSRs who completed the training program from using the fact-finding and empathy skills they learned.

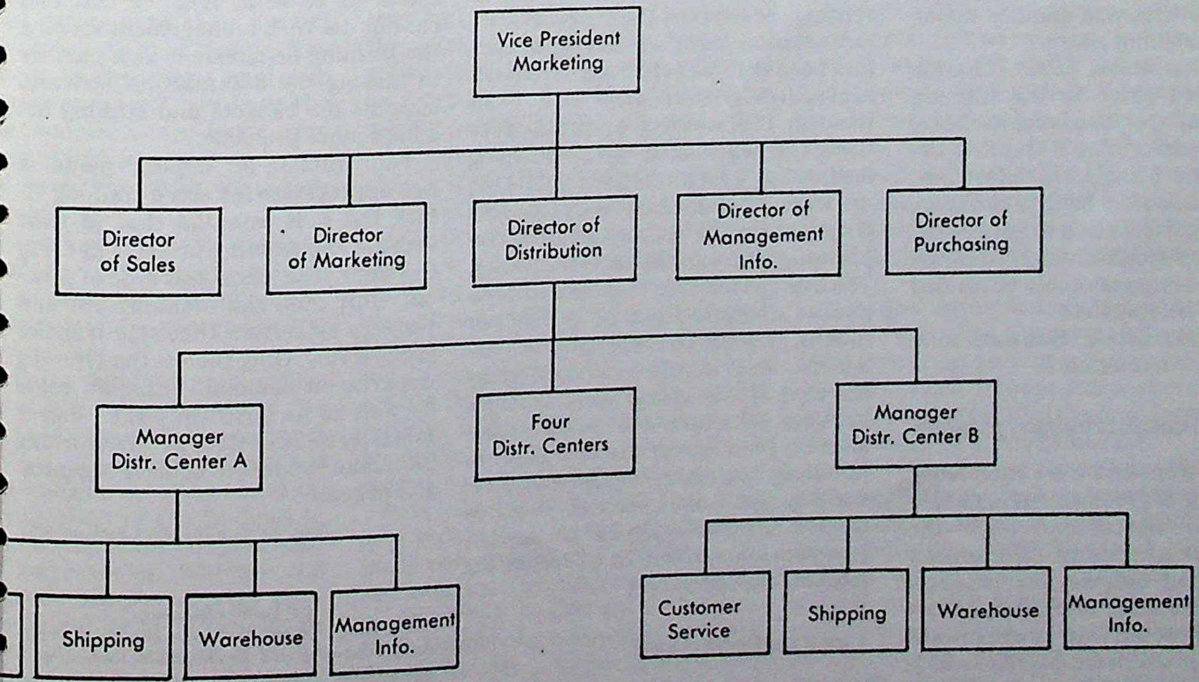
The study indicated that there were, indeed, organizational barriers. CSRs pointed out that their primary accountability involved the number of calls they took in a day; the effective handling of complaints was not a performance criterion. Obviously, it would require more time to handle a complaint well, meaning that fewer calls could be taken; in effect, a CSR could be punished for taking more time to handle complaints.

FIGURE 3. RESULTS FROM NU-KARPARTS TRACKING STUDY*

Behaviors	Prior to Training	After Training
1. CSRs will acknowledge the feelings of customers by labeling the feeling.	2.83	4.02
2. CSRs will rephrase what a customer has said before responding.	2.94	4.16
Scale: 1 = Behavior never used 2 = Behavior used about 25% of the time 3 = Behavior used about 50% of the time 4 = Behavior used about 75% of the time 5 = Behavior used 100% of the time		
Organizational Results		
Complaints per month escalated to director manager level of the organization.	22	5

In a typical tracking study, dozens of behaviors may be observed. Only two are selected here for illustration.

FIGURE 2. NU-KARPARTS, INC.



Management agreed to set up a new accountability system for CSRs that would evaluate the handling of complaints as well as the quantity of calls handled.

Agree with client on tracking for change

Once the program's outcomes have been clearly delineated, it is important to design a system that will monitor the results achieved both in qualitative and quantitative terms. The system must track both the behavior change which has occurred on the job *and* any resulting bottom-line impact to the organization. In order to accomplish this, the client and the trainer must agree on specific outcomes to be tracked.

The HRD professional must create the necessary survey process to gather the information. This usually requires collecting information about behavior both prior to training and at some point following the training. It also may be appropriate to compare the performance of people trained in the program against the performance of a similar group of people who have not received training.

At Nu-Karparts, the clients wanted to know if the CSRs were displaying behaviors such as "acknowledging the feelings of customers" and "rephrasing what the customer has said before responding." They also wanted to know if the number of complaints escalated to top management decreased over time. If complaints were being handled at the lowest level, avoiding the need for management involvement, customer satisfaction probably would increase—and that was another major goal of the training effort.

Information about CSRs' behavior was gathered prior to the training program and again four months later. In order to determine if the new behaviors were being used effectively, questionnaires were sent to the CSRs, to their supervisors and to customers. In this manner, information from the CSRs' self-assessments could be verified from other perspectives.

Information about escalated complaints also was collected.

Design and conduct training program

With the front-end work completed, the training department designs and delivers—or selects and buys—the program. Whether designed internally or purchased outside, the program should address the identified learner needs and proceed with an eye toward any work-environment barriers which might be present.

At Nu-Karparts, the training department designed a two-day program for the CSRs. Their supervisors were provided with an overview of this program and some skill-building in reinforcement behaviors.

Collect tracking data and report results to client

When the specified period has elapsed, post-training information is collected, tabulated, analyzed and reported to the client. This is truly where the "rubber meets the road" for the training department and the client team, for now we are looking at *results*. At this point, management and HRD either congratulate themselves on the program's success or decide on any actions to encourage results which have not yet appeared.

It is critical that the data which the HRD professional brings to this meeting paint an accurate picture so that appropriate decisions can be agreed upon. While HRD reports on the results, HRD *and* the client must determine the "So what?" and agree upon any required actions. If a study has been well constructed and presented, questions such as the following can be addressed:

- What behaviors are people using or not using on the job?
- What bottom-line impact, if any, did we have?
- If we have not achieved the desired results, why not?
- Should the training program be changed? If so, in what ways?
- Is additional training required?
- What must management do to create a work environment that will continue to support these new skills?

At Nu-Karparts, results indicated that behaviors *had* changed. As shown in Figure 3, CSRs who had been through the training program were using the behavior of "acknowledging feelings" at a mean frequency of 4.02, up from a mean frequency of 2.83; they were using the behavior of "rephrasing" at about the same frequency. The average number of escalated complaints dropped from 22 to five per month, providing a real organizational benefit. Most complaints were being handled at the lowest level possible. Because CSRs now were being evaluated on their use of the new skills in handling customer complaints, a reward system was in place to reinforce their *continued* use. All in all, the program appeared to be a success; the training had *impact*.

Can it really be done?

This description of "training for impact" may imply that an enormous—perhaps a prohibitive—amount of time is required. That is not the case. Knowledgeable trainers typically conduct some front-end work to clarify learner needs before launching their programs. The unusual parts of this process are the addition of a work-environment assessment and the design and implementation of a tracking system. Combined, these two activities require an additional five to seven days spread over the life span of the training project.

What *is* demanded here is skill: The HRD professional must be able to design good diagnostic systems; consulting skills are necessary both to forge the critical partnership with the client and to make that partnership work. Also required is a revised accountability system for the HRD department. Rather than being evaluated according to how many programs it offers in a year, the training department must be judged in light of the results it helps to achieve. Most HRD professionals probably will have to initiate this change by convincing management that significant benefits can derive from it.

And the benefits *are* significant, not only to management but to the training department: increased credibility in the eyes of management; the intrinsic reward that comes from knowing people are *really* using the skills learned in the classroom; allocation of limited training resources to assignments where results are relatively assured; creation of a work environment which supports these results; the education that management receives as to what training can and cannot do. With management viewing the training department as a partner in moving the organization forward, support for budgets and staffing becomes more probable.

The "training for impact" model is not appropriate for *every* training effort; but it is essential that at least some of the training projects in every calendar year follow this type of process. Only then can management and trainers be certain that skill transfer is occurring. Only then is the training department communicating its value as well as its cost. Only then can it honestly be said that we are working *with* management to achieve organizational goals.

Reprinted from TRAINING, February 1984

For Further Reading

Chalofsky, Neal, "Professionalism and Practicality," *Training and Development Journal*, p. 8 (June 1983).

Mager, Robert and Peter Pipe, *Analyzing Performance Problems*, Fearon, Belmont, CA (1970).

THE SNAKE-OIL SYNDROME (AND HOW TO FIGHT IT)

Step right up, folks, and see the management-training technique of the ages. Works on hives, gout, career development, coaching and promotions

BY H. ADRIAN OSBORNE
ND STEVEN D. NORTON

e old snake-oil pitchman of years gone by was able to thrive ecause the people who gath- round his wagon wanted desper- believe that his nostrum would erything from acne to warts.

n resource development spe- ts, on occasion, latch on to a echnique for measuring and icting the performance of man- and grasp it to their breasts at same sort of fervor. The itment to this single approach s to a "snake-oil" mind set: The ique becomes a cure-all for every rs of HRD products and serv- ave been known to encourage eptions.

do you counter the snake-oil e? By recognizing the im- ance of selecting a technique in he particular goal you're try- accomplish.

lists five popular techniques aluates their usefulness in five applications for personnel gement. The evaluations are t subjective, being based on erpretation of the findings in rch literature coupled with n experiences. Whether the grees completely with each on is not as important as an ce of the premise that no echnique can serve effectively areas.

Do it right

First, let's recognize it as a "given" that the results gained by any of these measurement techniques will be affected drastically by the way they are implemented. Errors on the part of the HRD specialist, the client or both can produce dismal results regardless of whether the right technique is being used to attack the right problem.

Assessment centers, for example, require good simulations and good training provided by a specialist; but if the client supplies second-rate assessors and facilities, the center will be second-rate. Psychological assessment requires a technically skilled psychologist; but if the client fails to provide realistic information on the demands of the target jobs and accurate feedback on the performance of those who are selected or promoted, the accuracy of the psychologist's recommendations will be greatly reduced. Rating forms require careful development (based on a job analysis) to ensure their validity; but proper rater training and management support for accurate ratings are essential, no matter how good the forms.

Performance standards and joint goal setting have been the subject of great controversy and confusion. We are avoiding the term "management by objectives" in this article because while it originally referred to joint goal setting for the purpose of improving the management process, it has come to be applied to any use of performance standards for determining rewards and punishment. As others have noted, the emphasis has sometimes shifted from *management* by objectives to management by *objectives*.

As the table indicates, both performance standards and joint goal setting are useful in certain applications. Unfortunately, managers often feel that they can combine the advantages of the two techniques by setting performance standards unilaterally, then deluding themselves with the idea that the standards were arrived at through a bilateral effort with subordinates. This pretense is a common thread in the failure of a lot of so-called "MBO" programs.

Another common problem is that standards tend to be set in areas that are easy to measure (like quantity of production) so that managers are rewarded for de-emphasizing things that are difficult to measure (like quality and customer relations). Setting performance standards properly requires an intense effort by a group of individuals with detailed knowledge of the operations being measured. Joint goal setting requires extensive training of both supervisors and subordinates.

Applications

Even if they are implemented flawlessly, none of these techniques is useful in every application. But the following discussion does presume that each technique is being handled properly.

- *Career development*. Although assessment centers were originally developed solely for the purpose of predicting managerial success, they have proven extremely useful for career development. Psychological assessments, on the other hand, have always included some form of career-development feedback; but while the type of information they provide is helpful, it often is not as helpful to the individual as that provided by an assessment center.

Joint goal setting is useful for career development when it provides a forum for the careerist and the supervisor to discuss the link between the personal goals of the former and the long-term requirements of the organization.

- *Coaching*. Rating forms have the potential for being the best foundation for coaching because they *should* focus both the supervisor and the subordinate on specific examples of the subordinate's behavior. Their use in personnel actions tends to hamper this application, however, because too often the attention of the subordinate is on *changing the rating* rather than on *changing the behavior*.

TABLE 1. TECHNIQUES FOR MEASURING MANAGERIAL PERFORMANCE: APPLICATION TO PERSONNEL MANAGEMENT

TECHNIQUES	APPLICATIONS				
	CAREER DEVELOPMENT*	SUPERVISORY ACTIVITIES		PERSONNEL DECISIONS	
		Coaching**	Planning***	Pay	Promotion
ASSESSMENT CENTER Trained assessors observe candidates perform simulations and rate them on dimensions	VERY GOOD Provides objective information from neutral parties	GOOD Provides specific areas for coaching	NOT RELEVANT	NOT RELEVANT	VERY GOOD Most valid predictor of managerial success
PSYCHOLOGICAL ASSESSMENT Psychologist interviews candidates and administers tests	GOOD Similar to assessment center, but less job-related	GOOD Similar to assessment center, but less job-related	NOT RELEVANT	NOT RELEVANT	GOOD Not as valid as assessment center
RATING FORMS Set of rating scales on which supervisors rate work behaviors, methods or skills	FAIR May not be relevant to personal goals	VERY GOOD Scales should reflect true job demands	NOT RELEVANT	FAIR Pay is usually for outcomes, not behaviors	GOOD If raters are trained and scales reflect target jobs
PERFORMANCE STANDARDS Standards set by management for the purpose of measurement. Usually apply to more than one job	FAIR May not be relevant to personal goals	FAIR Standards focus on outcomes, not behaviors	GOOD Focus is on outcomes stressed by organization	VERY GOOD Focus is on outcomes stressed by organization	BE CAREFUL Target job may require different behaviors and different outcomes
JOINT GOAL SETTING Goals set jointly by supervisor and subordinates as a focal point for the management process	GOOD Career development goals may be included	FAIR/GOOD Goals can include behavior changes	VERY GOOD Focus is on identification of obstacles to achievement	BE CAREFUL May lead to setting "safe" goals	BE CAREFUL May lead to setting "safe" goals

*Identification of long-term personal goals and how to pursue them.

**Day-to-day discussion of behaviors and methods.

***Periodic discussion of progress toward goals or outcomes.

Assessment centers and psychological assessments both provide good material for coaching when the results are fed back to the supervisor of the assessed individual.

- *Planning*. Both performance standards and joint goal setting are very useful for planning, but they produce somewhat different results. If performance standards quantify all of the important outcomes (rather than being open to "gaming") and are linked to pay, managers will be highly motivated to plan to achieve those outcomes. Joint goal setting, on the other hand, tends to emphasize the quality of the *management process* and is more useful than performance standards when it is difficult to quantify all of the important outcomes.

- *Pay*. If they are really "airtight," performance standards are very useful for negotiating salaries and benefits. But when joint goal setting is tied to salary, there is an inherent conflict of interest between the subordinate—who wants to play it safe by setting "easy" goals—and the supervisor, who wants to raise the productivity of the entire unit so that he will receive his own pay raise. (The federal government's recent experience with merit pay is yet another case study in the problems that arise when you try to mix performance standards with joint goal setting.)

Rating forms may *appear* useful for pay administration because ratings on individual scales can be added up to give an overall score for an individual. But in addition to the supervisor's common tendency to give inflated ratings, rating forms may be unsuitable for pay administration because they are most useful when they focus on behavior, rather than on measurable results—and pay raises typically are given for results. For example, if cost reduction is an important goal, it usually makes more sense to compare the rate of reduction among managers than to compare a supervisor's rating of each manager's "ability" to reduce costs.

- *Promotions*. Research generally has shown assessment centers to be the most valid predictor of managerial success. They may not always be cost-effective, particularly when the candidate pool is spread over a wide region, but they work.

Psychological assessments share with assessment centers the advantage of freeing the supervisor from the task of identifying the less-promotable subordinate and then living with the resulting dissatisfaction. For a variety of reasons, however, their track record is not as consistent as that of assessment centers.

Rating forms can be useful for promotion decisions *if* they are related to the target jobs, and *if* supervisors will identify the less-promotable subordinates. Even if assessment-center results are available, there usually is a need to give the candidate's supervisor some say in the promotion process. So, rating forms are difficult to avoid.

At first glance, performance standards look like the ideal tool to use for promotion decisions. The problem is that while almost all low performers are low in potential for promotion, not all high performers are high in promotion potential. The greater the difference between the candidate's current job and the target job, the greater the need for information above and beyond a record of how well the candidate has achieved his or her performance standards. The classic example is the outstanding salesperson who becomes a terrible sales manager.

Base promotions on the candidate's achievement of jointly set goals, and you run into the same problem as with performance standards. In addition, the subordinate again will want to "play it safe," as when joint goal setting is used to determine pay.

A warning

Since each of the techniques described here is expensive to implement properly, it is tempting to adopt or try to develop one technique for several applications, or to take a technique being used successfully in one application and expand it to others. If a joint goal-setting system is proving successful for planning, one wants to believe that the same system can produce acceptable personnel decisions. Unfortunately, the result is more likely to be poor personnel decisions *and* poor planning.

But—and it's a big "but"—there has to be a balance between the danger of adopting a single technique for too many applications, and the danger of overwhelming the line supervisor with a blizzard of time-consuming personnel programs that may damage the supervisor's relationship with subordinates and prevent *anybody* from getting any work done.

In other words, the arguments we have outlined here, like any other approach to organizational problems, can be clasped too firmly to the breast, followed with too blind a devotion . . .and turned into snake oil.

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JOB COMPETENCIES: CAN THEY HELP YOU DESIGN BETTER TRAINING?

A growing number of trainers use the concept of competencies to help them determine what trainees need to learn. But precisely what makes a competency is still up in the air, as you'll find out from several experts

BY RON ZEMKE

Competency-based training: Is it a new and revolutionary approach to determining what es into a training program? Or is it a ackaging of well-known and widely methods and approaches, with a ple of twists and a high-browed me?

If you're unsure of the answer, you t alone. For all the rhetoric about he benefits of competencies and comy-based training, few working ainers are exactly sure what the ex- mean when they start praising nd promoting competencies.

n TRAINING asked the compency-building experts for detailed elu- n, the reason for the confusion came clear: Competency, competen- ompetency models and compency-based training are Humpty y words meaning only what the finer wants them to mean. The prob- mes not from avarice, but in- ad from some basic procedural and ophical differences among those ng to define and develop the con- nd to set the model for the way rest of us will use competencies in y-to-day training efforts.

egins to appear, however, that est for the best approach and the ing for position among the in- rs is producing a valuable ss. In job arenas as diverse as g and nuclear engineering trainers and personnel specialists are hailing competency models as a breakthrough in work and performance criteria assessment.

An Alabama hospital administrator reports that the development of nursing competencies has resulted in "our first real success at career development for the profession." Explaining that until competencies were mapped, nurses were stymied in mobility by the parameters of the specialities they acquired in school.

A trainer in the nuclear power industry reports that competency statements help him save training time while improving excellence in training outcome. "They help you clearly communicate the responsibilities and the knowledge and skill demands to operator trainees," she says.

And a Texas-based franchising operation has found competency descriptions useful in explaining to heavy-hitting salespeople why the bottom-line achievement isn't enough for promotion to management. "We can graphically show them where they differ from managers in important skills and skill levels." All of which hints that there may be something very much worth pursuing on the competency model bandwagon.

Interviews with the experts unearthed three distinct approaches to developing competency models: the Modified Task Analysis Approach, the Critical Trait Approach and the Situational Approach.

Modified task analysis

This approach is basically the task-listing/task-analysis technique most trainers know, but with some minor niceties added. It is also the approach most widely used in vocational-technical schools. William E. Blank, author of the *Handbook for Developing Competency-Based Training Programs* (Prentice-Hall, 1982), describes competencies as " . . . specific, precisely stated student outcomes . . . that have been recently verified as being essential for successful employment in the occupation for which the student is being trained."

Blank contends that competency-based instruction (CBI) is really nothing new, and has, in fact, existed for some time under a multitude of different names. On his list of CBI cognates are such venerable training tags as Mastery Learning, Systems Approach to Education, Criterion-Referenced Instruction (CRI), Self-Paced Learning and Instructional Systems Development.

In this approach, panel experts judge which tasks are most relevant. Moreover, the task-analysis effort attempts to capture attitudes as well as motor skill performance and related knowledge.

Arthur E. Worth, of Worth Developing in St. Petersburg, FL, also advocates this method. He, too, sees it as similar to known systems approach procedures. "My approach to competency development is very similar to Robert Mager's CRI process," Worth says. The main differences are accounting for work environment conditions and applying a modified "80/20" (Pareto) analysis thinking.

"We start by getting a description of where time is spent," Worth says. "Then we scrutinize the high-value, high-frequency behaviors. In competency modeling we are after a functional analysis rather than a complete description of all possible job tasks."

Worth subdivides competencies into three classes:

- **Administrative competencies:** skills used to maintain an organization's cohesiveness. They often involve implementing policies and procedures necessary to different parts of the organization.
- **Technical competencies:** skills used to produce a product or service. For those jobs high in motor/manipulative skills, these are relatively straightforward. In jobs requiring many cognitive skills, the distinction between technical and administrative competencies becomes less clear.

- **Personal competencies:** people interaction skills. They describe how a person interacts with others while using administrative and technical competencies.

Critical traits

The best-known advocates of this approach are the people at McBer and Co., the Boston-based consulting firm co-founded by renowned Harvard psychologist David McClelland. The McBer approach to competency development takes its procedural and conceptual lead from McClelland's work on isolating the personality traits of entrepreneurs, and the parallel work of Robert White, who isolated a trait he dubbed competence and defined as "an underlying characteristic of a person which results in effective and/or superior performance on the job."

In job arenas as diverse as nursing and nuclear engineering, trainers and personnel specialists are hailing competency models as a breakthrough in work and performance criteria assessment.

The McBer approach focuses on the individual performer, not the job. "To us," says George O. Klemp, vice president of McBer, "competency is a description of the qualities an individual brings to work or life pursuits that make him effective."

Using this method, McBer researchers identify two pools of performers: superstars and average or below-average doers. They then try to uncover the critical traits, behaviors and general personal attributes that discriminate between members of the two populations. As Klemp puts it, "A personal attribute in this context can take many forms—it can be a kind of knowledge, an ability, an interest, a trait, a motive, even a self-concept—but the only way that such an attribute becomes a competency is in relationship to performance."

Although most psychology texts define a trait as "a relatively permanent and enduring quality that a person shows in most situations," McBer researchers hold that view to be antiquated. According to James A. Burruss, a McBer vice president with a heavy training background, "A finished competency description contains more than traits. It usually includes skills and abilities as well as motivation patterns and traits. But it is our view that even traits can be modified and developed."

Burruss also notes that McClelland's work on Need-For-Achievement (N-ach) motivation in entrepreneurs showed that the N-ach trait could be increased by teaching would-be entrepreneurs to think differently; to think like known successful entrepreneurs. The McBer process for capturing competencies has been dubbed the Job Competence Assessment Method (*JCAM*), which produces a *competency model* composed of three elements:

- A list of the competencies critical for outstanding performance.
- Definitions of the competencies in terms of observable behaviors.
- Descriptions of how each competency relates to the major tasks and functions that make up the job.

This method involves interviewing high and low performers about the "critical events" in their jobs. Prior to the interviews, a panel of supervisors and managers generates a list of behaviors, attributes and traits they have observed in high performers. These initial competency "guesstimates" are used to focus the interviews. Later, transcripts from the interviews are subjected to a rigorous thematic analysis, much as interviews from a projective personality test, such as the Rorschach or Thematic Apperception, would be.

The process is much like that used to develop the Behavioral Anchored Rating Scale (*BARS*). Its strength is that it isolates critical features of high performers. A weakness is that traits of behaviors which don't vary between high and low performers fail to appear in the final competencies. Finally needs for technical job knowledge tend to be lost in this process since such "entry level" knowledges and skills tend not to distinguish high and low performers, especially in higher level job classifications.

Situational competencies

Exemplified by the work of Patric McLagan, of McLagan and Associates, Inc., in St. Paul, MN, this approach is sort of "form follows function" route to developing competency model McLagan, who is conducting a widely anticipated trainer competency stud for the American Society for Training and Development, believes "you ca prescribe one look for a competency model or one method for developi them.

"If you are developing competenci for a given job, a job family, a profession or for a job that doesn't exist, y have four different situations that dictate how you must proceed," McLag continues. "High-level jobs are very abstract and require special a proaches. Lower-level jobs are much more concrete and the competency models for them look like task analyses."

All of which leads McLagan to a

ADMINISTRATIVE

CA3. Evaluates performance of department personnel and provides feedback

3.1 Collects all relevant data on performance from all appropriate sources.
3.2 Involves employees in advance preparation for performance reviews.
3.3 Utilizes competency list for the position to evaluate skill level.

PERSONNEL

CP15. Conducts performance appraisal interviews with employees effectively and on schedule

15.1 Asks for employee comments on job performance without developing defensiveness in employee.
15.2 Uses actual job behaviors to illustrate positive and negative aspects of reviews.
15.3 Listens and reflects understanding of employee concerns about negative aspects of his/her performance.
15.4 Utilizes competency list to facilitate discussion of skills.

TECHNICAL

T7. Describes and develops building maintenance procedures

7.1 Describes the minimum and optimum requirements for maintaining a facility in operating condition.
7.2 Develops preventative maintenance procedures, as needed, for the facility.
7.3 Identifies the number of personnel required for maintenance.

Figure 1. Sample of a competency model for a Performance Appraisal Responsibility us the Modified Task Analysis Approach (courtesy of Worth Developing).

JOB FUNCTION	COMPETENCIES	BEHAVIORAL INDICATORS
1. Anticipating problems, identifying opportunities	a. Conceptualization	■ Identifies patterns among events, facts, or observations
		■ Uses simple examples to communicate complex ideas
	b. Initiative	■ Takes action before being asked to do so
		■ Persists to overcome obstacles
2. Translating new ideas into practical application	a. Entrepreneurial Drive	■ Looks for efficient ways to get things done
		■ Expresses concern with high standards and performance improvement
	b. Risk Minimization	■ Works to minimize risk
		■ Resists changes that threaten order
3. Managing subordinates	a. Socialized Influence	■ Shares ideas with and solicits ideas from others
		■ Sells ideas in terms of others' interests
	b. Low Need for Affiliation	■ Gives criticism (as well as praise)
		■ Confronts conflict

Figure 2. Sample of a competency model of an Operations Manager developed using the Critical Traits Approach (courtesy of McBer and Company).

somewhat more complex definition of competency and competency model:

- **Competency:** A capability of an individual which relates to superior performance in a role or job. It may be a knowledge, skill, intellectual strategy or a cluster of all three that may apply to one or many work units. The level of generality (scope) of a competency statement depends on its intended use.
- **Competency model:** A list of the highest-leverage competencies for a specific role, job or job family, within a given time frame. The number and level of generality of the competencies depend on the model's intended use.

One of the most powerful uses (of competencies) is self-assessment.

Because of her belief in the "situationalness" of competencies, McLagan is reluctant to prescribe a step-by-step process to develop them. But her general approach is "somewhat anthropological in nature. We use a number of data-gathering methods and try to triangulate on the critical competencies." McLagan's associates "work with the people who determine the parameters of the job and who can tell us what the job produces that is of value to the organization."

The result is called a Model of Excellence, used to identify top performers (McLagan terms them Key Producers). Subsequent interviews with these employees help determine critical competencies.

McLagan emphasizes that she seeks master performers—not organizational stars. "The fast trackers aren't necessarily good models," she says. "They sometimes behave oddly, even unethically. Often those aren't behaviors you would want to promote and encourage in the organization; they could shake an organization apart if practiced on a broad scale."

McLagan also is apprehensive of using generic or personality trait names in competencies. "We are trying to communicate the key themes that explain excellence in behavior in the organization," she says. "So the terms we use create a language about performance for people to use in the organization. That language has to be accepta-

	LEVELS OF EXPERTNESS		
COMPETENCY	BASIC 1 2 3	INTERMEDIATE 4 5 6	EXPERT 7 8 9
User Relationship Building. This competency involves understanding the users' situations, acknowledging their viewpoints, speaking their language, helping them understand the data systems viewpoint, and establishing trust and credibility.	■ "Uses *user language* instead of data processing codes when talking to a user." ■ "*Responds* to user phone calls quickly."	■ "Advises the user in advance of an event that may go wrong and leaves the user *feeling that's OK*, we'll cope together." ■ "Explains the expected effects of a requested change on the rest of the system such that the user *believes the explanation* and changes the requests."	■ "Prepares a joint feasibility study which the user *feels as committed* as the systems expert." ■ "Openly talks about a major and multi-faceted systems problem that has arisen because of user-instigated problems. *Gains the user's support* in correcting the problems and in finding the solutions."
This defines the competency	*These examples illustrate the types of behaviors which can be used to communicate and assess various levels of expertness in the competency area.*		

Figure 3. Sample of a competency statement and expertness rating scale for one (of twelve) competency in a Data Processing Competency Model developed using the Situational Approach (courtesy of McLagan & Associates).

ble and comfortable to the users. The competency model has to be written within the users' scope of thinking."

Common enthusiasm

Although the competency builders TRAINING interviewed use different approaches to capturing competencies and developing models, they share a common enthusiasm for the benefits of using them in an organization. One of the most powerful uses is self-assessment, according to both Worth and McLagan.

As an example, Worth cites a hospital plagued by a staffing shortage in the recovery room. Measuring themselves against competencies Worth had developed, nurses from outside the unit determined what skills they needed to work in the recovery room.

Klemp and Burruss say that competencies will help "break the personal development logjam," but also see them as highly valuable in the selection process. Competencies offer something very concrete for interviewing and judging candidates, they suggest.

Other uses for competencies include individual career development, self-assessment, performance assessment and review, curriculum planning, task-team assembly, organizational development, strategic and manpower planning, and job modeling for jobs that don't yet exist but that will be needed in the future.

Perhaps the advocates of competency-based training and development make too many claims of and for their brainchild. Then again, they may not have even guessed the potential. Only time will tell. One thing is sure: The competency concept may be the most exciting and potentially promising idea to hit the training field since behavioral objectives. And that takes some doing.

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THE COMPETENCY MODEL ALTERNATIVE

Learner-direct learning is an approach fast gaining credence with adult learning theorists

BY MICHAEL MAGINN

Tucked away in Canada's Maritimes, on Prince Edward Island, is a community post-secondary school called Holland College that should interest trainers everywhere. The style of instruction is competency based. Learners direct and select their own goals and learning credence among adult-learning theorists. Why, one wonders, does this educational alternative work on remote Prince Edward Island, when attempts to introduce milder forms of instructional change in more urban and cosmopolitan sections of the continent so often falter.

The answer may lie in Holland College's approach to instructional development. In essence, the administrators and faculty of this hardy community college have taken pains to assure that grandiose sounding systems, methodologies and mechanisms of teaching are adapted to the needs of students, who are offered freedom of choice with associated responsibility for achievement. There are no cookie-cutter systems or cookbook models in use at Holland College. Instead, there exists an approach to competency-based instruction which reflects a carefully developed philosophy of adult education that is unanimously supported by all staff members.

"At the beginning, back in 1969," said Dr. Don Glendenning, president of Holland College, "we found that there were a lot of perceptions about what a community college should be. We went through a period of introspection and consensus before we developed a philosophy we could live

HOLLAND COLLEGE SELF-TRAINING AND EVALUATION FORM

ACCOUNTING TECHNOLOGY

4	C	CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE AND CAN LEAD OTHERS IN PERFORMING IT.
	B	CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE WITH INITIATIVE AND ADAPTABILITY TO SPECIAL PROBLEM SITUATIONS.
	A	CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE WITH PROFICIENCY IN SPEED AND QUALITY.
3		CAN PERFORM THIS SKILL SATISFACTORILY WITHOUT ASSISTANCE AND/OR SUPERVISION.
2		CAN PERFORM THIS SKILL SATISFACTORILY BUT REQUIRES PERIODIC SUPERVISION AND/OR ASSISTANCE.
1		CAN PERFORM SOME PARTS OF THE SKILL SATISFACTORILY, BUT REQUIRES INSTRUCTION AND SUPERVISION TO PERFORM THE ENTIRE SKILL.
0		HAS SOME KNOWLEDGE AND LIMITED EXPERIENCE, BUT NOT SUFFICIENT FOR PARTICIPATION IN A WORK ENVIRONMENT.

OPERATE ACCOUNTING SYSTEMS	IDENTIFY SOURCE DOCUMENTS	RECORD BASIC ACCOUNTING ENTRIES IN BOOKS OF ORIGINAL ENTRY	BALANCE BOOKS OF ORIGINAL ENTRY	POST AND BALANCE SUBSIDIARY LEDGERS
	MAINTAIN PARTNERSHIP ACCOUNTS	MAINTAIN EQUITY ACCOUNTS	MAINTAIN SHARE CAPITAL STOCK RECORDS	MAINTAIN BRANCH ACCOUNTING RECORDS
UTILIZE BUSINESS MACHINES AND COMPUTERS	OPERATE ADDING AND CALCULATING MACHINES	OPERATE OFFICE EQUIPMENT	OPERATE DICTATING MACHINES	TYPE VARIOUS STYLES OF LETTERS, FORMS, AND FINANCIAL STATEMENTS
PARTICIPATE IN MANAGERIAL FUNCTIONS	SELECT AND ESTABLISH FILING SYSTEMS	DESIGN FORMS	AID IN IMPLEMENTATION OF SAFEGUARDS FOR ASSETS	EVALUATE STORAGE, DISPOSAL AND SECURITY OF RECORDS
PREPARE AND ANALYZE FINANCIAL REPORTS	PREPARE INCOME STATEMENTS	PREPARE BALANCE SHEETS	PREPARE STATEMENT OF RECEIPTS AND DISBURSEMENTS	PREPARE DEPARTMENTAL STATEMENTS AND REPORTS
APPLY BUSINESS MATH AND STATISTICAL CALCULATIONS	USE SHORT METHODS TO MAKE RAPID CALCULATIONS	CALCULATE AND USE FACTORS, MULTIPLES AND FRACTIONS	CALCULATE AND USE PERCENTAGES	CALCULATE SIMPLE AND COMPOUND INTEREST
MANAGE GOVERNMENT TAXATION	UTILIZE INCOME TAX GUIDE	CALCULATE AND REMIT PAYROLL	INTERPRET AND APPLY UNEMPLOYMENT	PREPARE WORKMEN'S COMPENSATION

with." That philosophy, which forms a framework for all programs developed, entails the following:

- Skills required in an occupational field shall be identified by persons in the field.
- Students are responsible for their own progress, and instructors are accountable for student progress.
- Learning shall be stressed instead of teaching.
- The instructor shall assess, diagnose, prescribe and tutor but not be the sole conveyor of information.
- Programs shall be individualized (personalized) to the full extent that resources allow.
- Holland College will schedule resource rooms, materials and instructors instead of students.
- Evaluation shall be as realistic and meaningful as possible, in keeping with evaluation in the work environment.
- Students shall be able to enter and leave a program at any time.
- Credit shall be given for previously acquired skills.
- Ratings are based only on performance.
- Students shall evaluate their own performance prior to confirmation by an instructor.
- Students shall be able to continue their learning program in a systematic way after leaving the college.

These principles are embodied in Holland College's Self-Training and Evaluation (STEP) approach to instruction. The objective of STEP, according to Dr. Glendenning, is to help learners assume responsibility for planning and achieving their own development goals while acquiring the skills needed to enter the job market. Essentially, the STEP approach is an open-entry system where students can select objectives to work on from a course blueprint, develop the necessary skills with advice and counsel from an "instructor," and evaluate his or her own performance. This self-evaluation is matched with the industry criteria-based evaluation given by the instructor.

The principles of student freedom and responsibility have guided the faculty in designing two critical and troublesome areas of instructional development: curriculum selection and evaluation. Here's how Holland College does it.

Curriculum selection. The Holland College approach to selecting subject matter involves the active and intense involvement of practitioners. "If we're developing an office-skills program, we'll ask secretaries to help us analyze the tasks they face daily," said Jack Sand, professional development coordinator at Holland College. "If, say, it's photography, we'll get photographers from town."

These subject-matter experts meet at Holland College for a three-day brainstorming session to determine the skills required for a new employee in the field. "The first step is to develop a list of competencies that covers the whole subject," said Sands. "Often that means teaching our subject-matter experts to think in terms of behavior and performance rather than knowledge and understanding."

The next step is to identify specific skills within each major area of competence required for a new hire. In electronics, for example, the subject-matter committee lists areas of competence required of all electricians, such as "use tools and equipment," "troubleshoot, isolate, and replace defective units," and "identify, select and handle electronic components." Each of these broad competency areas are further broken down into specific skills. For instance, troubleshooting would include such skills as "analyzing voltage and current measurements to isolate faults," "isolating faults to component level," and "checking components by patching."

At this point, a skill chart is made for each student and arranged in order of difficulty, from simple to complex. The student chooses his or her own starting point, depending, of course, on course content.

The reference materials for each particular skill are kept in files at learning centers devoted to each area of study. These files contain directories of helpful resources — commercial and homemade — as well as instructions for evaluation. Laboratories equipped with machinery and tools the students can use as they learn the skill are also part of the learning center.

Evaluation. Since courses are essentially designed by industry, performance of students is also evaluated according to industry standards. "The Mager approach to writing criteria standards for objectives is quite valid," said Dr. Glendenning, "but we don't necessarily use that approach here. Behaviors are stated on our skill charts, but when it comes to stating the criteria for acceptable performance, we avoid all the detail."

Glendenning says he is not opposed to writing criteria statements for acceptable performance for each skill, but "it's just a gigantic task for us, given our resources, time and the framework we work in. Instead, we've found an evaluation route that's workable for us."

The route taken by Holland College is a simple numerical scale representing the kind of quality, quantity and amount of supervision required of the worker. Each rating is awarded on the basis of the student's performance compared to job requirements in industry. The rating scale covers the whole range of skill ability, from no experience at all to highly skilled performance in seven steps. (See accompanying chart.

The evaluation method in Holland College's STEP system reflects the freedom-and-responsibility theme of their philosophy. Students evaluate their own performance when *they* are ready; instructors are asked to observe the skill being executed and offer an evaluation based on industry criteria. If there's a discrepancy, students and instructors discuss *why* that difference has occurred.

Holland College applies its philosophy of learning in training its own instructors and in evaluating staff performance. "We have to use this system daily; we have to take our own medicine," said Glendenning. Accordingly, all evaluations of performance throughout the Holland College system use the scale. To Glendenning, the administration of a competency-based program would be remiss if it didn't practice what it preached.

"The key to implementing a program like this," said Glendenning, "is to see that the staff and faculty are properly oriented and committed to the idea. We also have to orient students, but without the faculty believing in the approach, it would be difficult to make it work. We spend a good deal of time helping staff develop their skills toward that goal."

So, at Holland College, students and faculty are given the opportunity to learn, one from the other. The college provides the setting and the resources for learning to take place, and the student provides the rest.

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HOW TO DESIGN THE IDEAL TRAINING COURSE

This author practices what he preaches and comes up with a plan for the best possible training design

BY DAVID D. CRAM

Bob Mager and I were chatting one day, grumping over the fact that we knew so much more about good training than we were actually practicing.

"What we need," says I, "is a course on how to do it right."

"What we *really* need," says he, "is a course on how to do it right, *that does it right.*"

As good as his word, Mager developed with Peter Pipe the workshop course *Criterion-Referenced Instruction: Analysis, Design and Implementation,* which provided the model for the ideas discussed in this article.

If you were to set about to design an ideal course, how would you proceed? One way would be to canvass the literature to search out techniques that are known to be effective in helping students to learn. Another way would be to talk to students to find out what pinches—what the common complaints are about the way conventional instruction is conducted. An ideal characteristic is anything that eliminates a pinch or that operationalizes something the literature says is good; and you can isolate a dozen or more ideal characteristics which would be guaranteed to help any instruction. They're all very logical, and obvious once you've seen them. Furthermore, different courses will have different ideal characteristics. That doesn't matter. Our purpose here is to illustrate that if you want to develop what your students will look at as an "ideal course," it is possible to approach the problem head-on and make significant progress.

As we discuss these ideal characteristics, it will help if you can think of them from a student's point of view. So, shift into a thinking mode (brow wrinkled, brain clenched, fist in mouth) and imagine you are a student, dreaming of an ideal instructional system. How would you like to be treated? How would you like the course to be run? What bugs you, and how would you change things, given your druthers?

1. *An ideal course will make it clear to everybody just what the end product skill will be.*

It seems so reasonable! If we want you to be able to pluck a chicken, or sail a steady course, or juggle three balls and a dinner plate, we show you how and make sure that you have the end product visualized. What's more, we stand willing to tell the world what we want.

The same is true if we're teaching you how to solve equations, write grammatical sentences, or design experiments. We have no reluctance to tell you what skill is needed.

We learned a long time ago if we tell the students exactly what it is we want them to be able to do, we often won't have to tell them anything else. But there's more to it than that. When we tell them what we want them to do, we are also making our intentions clear to other instructors, to employers, and most of all, to ourselves. Anyone who has ever struggled with objectives knows what I'm talking about. Many a course has changed direction when the objectives were hammered out in clear terms.

Reasonable? Sure it is. Where we find resistance is where we teach pure information for its own sake, without a clear picture of how it will ultimately be used. You know how it goes:

"We ought to put in a little about the theory of transistors in case they run into a problem where they'll need it." And so saying, we assign a text or a chapter to read, hoping some will stick. But since we don't know what of it will be needed, or when, we can't be too specific about what the student should study.

I'm not saying that we shouldn't teach informational things, but when we do, we should teach them as a necessary part of some skill, and then test the *information* by testing the *skill.*

2. *An ideal course will let everybody know how the objective is going to be tested.*

The more information we can give you about how you are to be tested, the more easily and quickly you can develop the skills. Why do we have such reluctance to let the student know what the test is? Well, when we find ourselves cringing at the thought of giving away the test, we are probably in a *teach about* mode rather than a *teach how* mode. There are very few skills that are taught where we can't let you (the student) know what the skill is and how it is to be tested. It is only when we are teaching *about* (and are using the test as a sample of what the student can say about the subject) that we have to guard the nature of our test.

We're trying to eliminate the adversary relationship between student and instructor, and the quick-direct and open about the nature of the test as we can be. We don't want you to be using energy to guess about how the skill will be tested. If we want you to have a skill, and you know what the skill looks like, there is no reason to hide the way in which we will ask you to prove you've got it. (See figure at top of next page.)

3. *An ideal course will take advantage of what you know and can do when you come in.*

This is one of the obviously good ideas, and one that almost everybody will agree with, but it's one of the hardest to implement. We know how irritating and distressing it is to be instructed on how to do something we already know how to do. But how do we avoid that? How do we find out what you can already do, and then how can we utilize that information once we have it?

Well, once the instruction is divided into skills (objectives) and the means of testing each skill is made known, you (the student) can look at objective and test, and decide if you have the skill or not. If the skill is there, you take the test and go on to the next module. If you don't have it or aren't sure, you can turn to the module and judge for yourself whether you need instruction, review, brushup, or practice before going for the test.

Make no mistake, this is hard on the instructor. When students ask to see the test before we've laid our instruction on them, the impulse is to say, "But you can't possibly *really* understand unless you've read Dingle and Queep or done exercise number four," or whatever.

That's a hard tendency to shake, but shake it we must, if we're to take advantage of what the students know and what they can do when they come to us.

4. *An ideal course will give you (the student) as many choices of paths through the instruction as possible.*

You may have noticed in your wanderings through life that people are different from each other and they vary in mood and interest from day to day. An ideal course would do what it could to allow for variation in path. Very few skill hierarchies have to be taught in a fixed sequence. That is, even though skills may be performed in an unvarying sequence, the parts may be taught in a different order. For example, if you were going to build a table, you would proceed in a certain order, from cutting to assembling to finishing. But if you were to learn the *skills* of table building, you could learn sanding and finishing skills first, or last, or in the middle somewhere.

The tendency to teach in the same order as we perform is strong, and yet a lot of enthusiasm can be dampened when we force students to put off parts that seem interesting so they can learn less interesting things first. One of our objectives for any course should always be the affective one of wanting you to like the subject matter. Now, we can't guarantee that you will like it, no matter what we do, but we can play the percentages. One way to do this is to be ready to capture your interest where it lies rather than to try to force it along an arbitrary path. Of course, sometimes we have to insist on a certain track, but where we don't have to, we're better off not.

5. *An ideal course will provide a range of software.*

One of the dogmas of the audiovisual business is that most of us learn best what we see, but the fact is we learn best in different ways, and the nature—the personality—of a presentation has as much to do with it as anything. We learn from writers we like and find the others hard going. Some of us find books easy to visualize and others need the help of movies. And some topics are harder than others.

When we design instruction for the hypothetical student, we often have to choose a "best method" or "best materials." But most frequently, we look at the situation, make judgments, and then choose one method which will interest and instruct the greatest number of our students.

But think of it this way: an instructor performs a certain number of functions—informing, showing how, providing feedback, counseling, and so on. Some of these functions are easier than others, and some can be done by book, or tape recorder, or TV, or movie. Now if we assume that it's desirable to use living human beings to the highest purpose, then we should have no reluctance in using whatever media are available to replace the live instructor in this dissemination role.

Except for the teaching of very simple skills, no instructional method is likely to be perfect for all students. And for any much-used skill, there is likely to be a host of instructional material available to the student. An ideal course would not use the instructor in a role where a book would do as well, but rather use the instructor where a book would not do at all, for example, in individual counseling.

6. *An ideal course will allow enough time for any qualified individual to finish.*

One of the most counterproductive aspects to our present system is the fact that it is time-based rather than competency-based. The students are started, ready or not, and after a period of time the instruction ceases whether or not the students have mastered the skill. The folly of this practice is made clear when we attempt then to move the students on to new skills which depend on mastery of the old. Of course they can't master the new skills!

We don't make stupid mistakes like that when we teach someone to fly an airplane. The students work on landings until they can do them; the students master navigation before we let them practice cross-country flying. But as soon as we begin teaching *about* rather than *how* we tend to push and prod the slower student to keep up with a time schedule and then cut him or her off when time is up.

An ideal system will give you (the student) assurance that you have the time you need to read, ponder, practice, work out difficulties, look at other explanations, talk to other students—whatever you need to learn to do the skill.

This is important, too: you need to know that you can't get out of learning a skill by simply stalling until the time for learning it is past. The skill sits there waiting to be mastered and the sooner you do it the sooner you can move on to the more complex skills.

The other side of the coin is just as important. You need to know that you are in a system designed so that if your interest catches fire you won't have to sit around and wait for others to catch up.

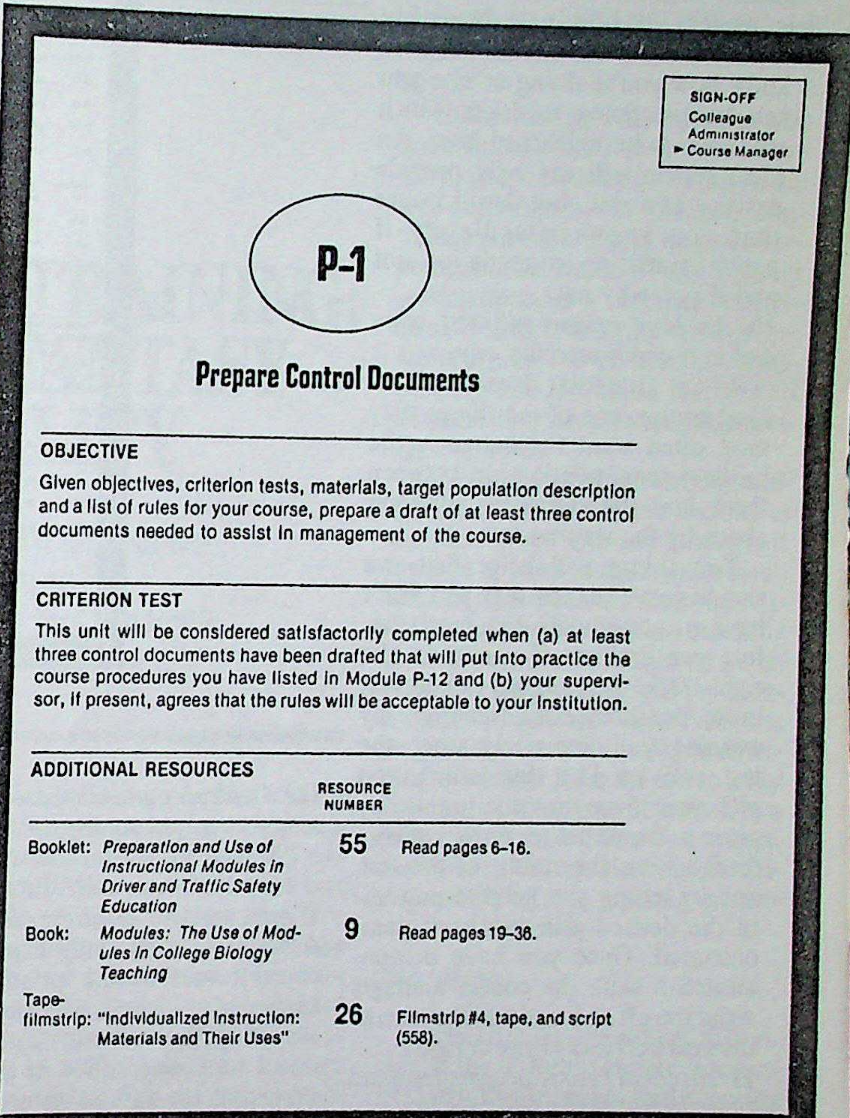
7. *An ideal course will provide a map to keep you informed about where you are in the system.*

It is a well-documented fact that the closer we are to the completion of a task, the harder we will work to finish. We know this, and yet how many instructional systems take the simple step of providing a course map? *We* know where you are, but we forget that often you have no idea. In a time-based system you know how much time is left in the course, but we're talking about real instruction, where we care about what skills you have. If it's motivating to you to keep track of where you are, then we should provide a way; a course map is such a way. (See figure at right.)

8. *An ideal course will provide opportunity for practice of the skill being taught.*

It seems obvious to say that an ideal system will provide practice, but it's not so obvious at all. There is a strong temptation, when designing instruction, for us to tell you exactly how to perform a skill, what to watch out for, and how to tell when you're doing it right, but not to provide space and time for you actually to practice under guidance. When we're teaching complex skills, comprised of subordinate skills, there is a temptation to overlook practice at the culminating skills and focus all attention on the component skills.

In an ideal system, each skill is learned before it is needed for a greater skill, and that means that practice has to be built in along the way. That way we keep reducing the apparent complexity of



SIGN-OFF
Colleague
Administrator
► Course Manager

P-1

Prepare Control Documents

OBJECTIVE

Given objectives, criterion tests, materials, target population description and a list of rules for your course, prepare a draft of at least three control documents needed to assist in management of the course.

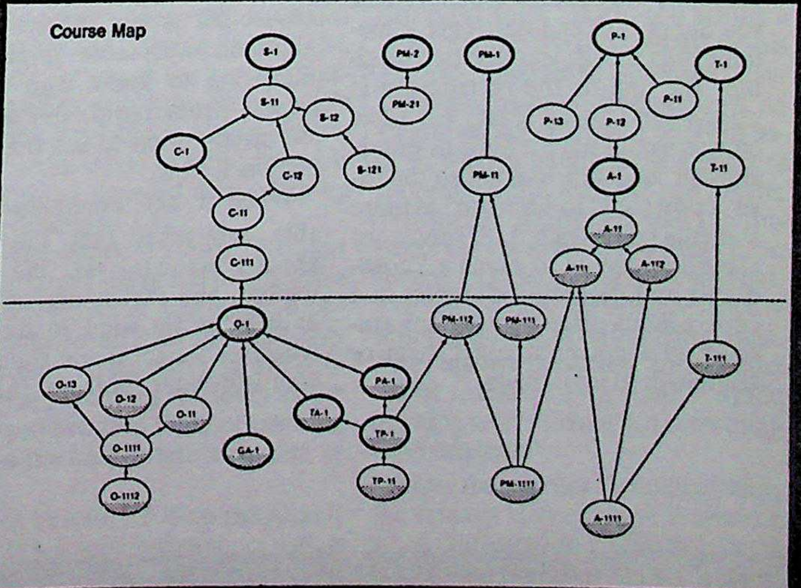
CRITERION TEST

This unit will be considered satisfactorily completed when (a) at least three control documents have been drafted that will put into practice the course procedures you have listed in Module P-12 and (b) your supervisor, if present, agrees that the rules will be acceptable to your institution.

ADDITIONAL RESOURCES

		RESOURCE NUMBER	
Booklet:	*Preparation and Use of Instructional Modules in Driver and Traffic Safety Education*	55	Read pages 6–16.
Book:	*Modules: The Use of Modules in College Biology Teaching*	9	Read pages 19–36.
Tape-filmstrip:	"Individualized Instruction: Materials and Their Uses"	26	Filmstrip #4, tape, and script (558).

The ideal course includes written objectives for every training module, information about the way it will be tested, and a list of relevant resources. (Shown above, below and on page 78 are pages from the Mager/Pipe course, "Criterion-Referenced Instruction: Analysis, Design and Implementation," © 1974 by Mager Associates, Inc.)



The ideal course includes a "road map" to the program's activities. In this example, arrows signify prerequisites; heavier ovals indicate the terminal objective in a series.

complex skills because they are always comprised of things you can already do.

9. *An ideal course will provide feedback to you (the student) on your practice.*

Practice and feedback go together. Without feedback, practice is useless at best and probably counterproductive. You have to know how you're doing or else you can be practicing mistakes which will have to be unlearned later. An ideal system will not only provide practice at a skill, but it will insure that you know immediately if you're practicing correctly or not and if not, why not.

10. *An ideal course will test often and in a nonthreatening way.*

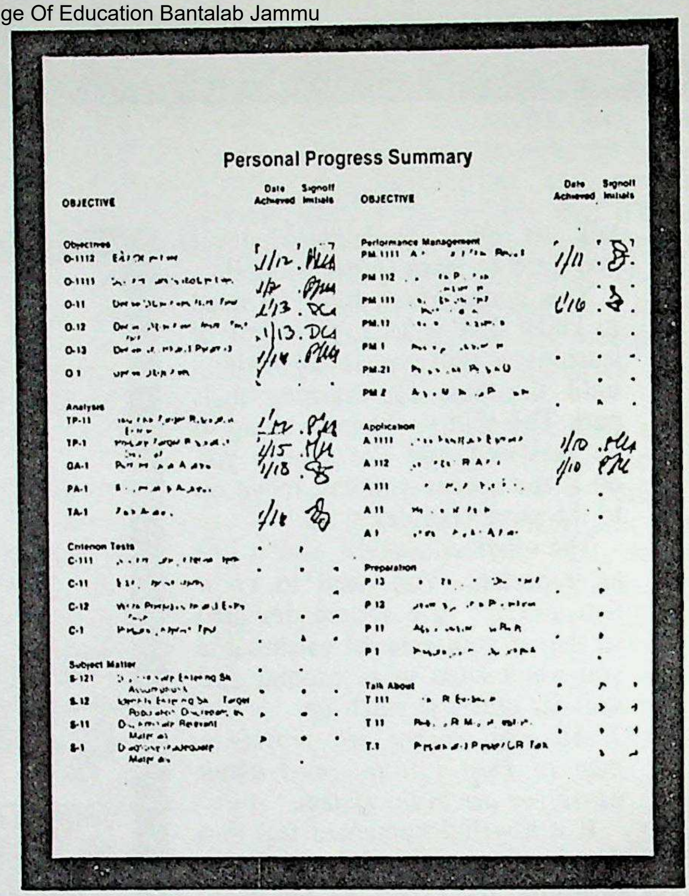
When students dream of an ideal course, one of the things they most often want to change is the brittle, enemy relationship between them and the instructor, brought about by the way we test.

Two things will help: first, we should test often, so that you don't have to accumulate too much before you find out if you're on the right track. Second, we should test in a nonthreatening manner, by warning you accurately what the test will be like, by letting you pick your own time for testing, by giving immediate constructive feedback on the results of the test, and by letting you keep testing until the desired skill has been demonstrated. Once you have demonstrated a skill, the course manager signs you off on it and you move on to the next skill (See figure at right).

11. *An ideal course accepts feedback from the student for self-correction.*

No system is perfect. From your point of view, if you missed a skill, something is wrong with the system. That is, if you bent honest effort (and you did or not) and didn't get something even though you expected to, either the test or the instruction is poor—for you at least. An ideal course would have a built-in provision for feedback to itself so the instruction could be improved as more students go through it. A simple yet effective way is to place a "comments and suggestions" tablet in a conspicuous place and ask any student who voices a suggestion or complaint to jot it down.

The ideal course includes a personal progress summary, in which modules are signed off as each skill is acquired.



Personal Progress Summary

OBJECTIVE	Date Achieved	Signoff Initials
Objectives		
O-1112	1/12	
O-1111	1/12	
O-11	1/13	
O-12	1/13	
O-13	1/14	
O 1		
Analysis		
TP-11	1/12	
TP-1	1/15	
OA-1	1/18	
PA-1		
TA-1	1/16	
Criterion Tests		
C-111		
C-11		
C-12		
C-1		
Subject Matter		
S-121		
S-12		
S-11		
S-1		

OBJECTIVE	Date Achieved	Signoff Initials
Performance Management		
PM 1111	1/11	
PM 112		
PM 111	1/16	
PM 11		
PM 1		
PM 21		
PM 2		
Application		
A 1111	1/10	
A 112	1/10	
A 111		
A 11		
A 1		
Preparation		
P 13		
P 12		
P 11		
P 1		
Talk About		
T 111		
T 11		
T 1		

12. *An ideal course compares student to objective, not student to student.*

"Mirror, mirror on the wall, who is fairest of them all?" From *Snow White* to the *Guiness Book of Records* we continually express our concern to find the prettiest, the biggest, the longest, and the smartest. Superlatives are interesting, and I suppose justified in the sense of giving the rest of us something to shoot at, which is O.K. unless you're the one being shot at. Unfortunately, we have allowed an interest in comparative values to obscure our proper concern for the minimum acceptable values. It is interesting to know who has the neatest penmanship, but it is the job of education to see that everybody is legible.

When I say minimum acceptable, remember that I'm talking about a standard that the instructor sets, and that minimum can be as high as we want to set it. But wherever we set it, we should then compare your skill to that minimum, and not make the mistake of changing standards based on what some other student did on the final. If we set out to teach you to write, and you learn to write, we should sign you off on writing, without respect to what anybody else did or didn't do.

Certainly, there are times when people want to know who is the most skillful or the brightest or who has the most potential of all the students, and for those times the appropriate measuring tool is one that compares one student with all the rest. But in an ideal instructional system our concern is to teach the skill to an individual. We are successful if you learn it, and if you have trouble we're going to modify our instruction and add to it to do everything we can to build the skill into you. In a system like that, we do what we have to do to make all students succeed, and whether one succeeded better than another is simply an irrelevant concern.

Reprinted from TRAINING, December 1975

PARTICIPATORY TRAINING: SEPARATING FANTASY FROM REALITY

It's hailed as a heaven-sent alternative to the boring lecture. So why does this session feel like hell?

BY JANET HOUSER CARTER

The brochure for your favorite annual convention has finally arrived. It's the one you've anxiously awaited since you heard that this year's gathering would be in Las Vegas. You open the program to the session descriptions, already formulating justifications and "derived benefits" in your head. As you scan the listings, one session jumps out at you:

"An analysis of current trends in high-tech training systems. The presenter is an internationally recognized authority in the field, whose experience includes 15 years in human resources development positions and four years of work and research with technology-enhanced training delivery in Fortune *500 companies. In this participative session, we will explore together the uses and implications of various interactive systems for efficient and effective training. Four hours."*

Sounds good, eh? Beware: That pleasant-sounding line about a "participative" session might be a danger signal. Suppose that, just once, the brochure contained an actual description of how this particular session will run:

"An analysis of current trends in high-tech training systems. The presenter, who claims to have devoted considerable study to the subject, will not

thoughts or findings. Instead, she will solicit lists of answers from the group, which will be composed mostly of people who, like you, are here because they don't know very much about computer-based training or interactive video, and were hoping to learn something from someone who does. Each response, no matter how dumb or irrelevant, will be written on a flip chart with a squeaky magic marker. Flip chart pages will then be taped to the walls and thereafter ignored, unless they fall to the floor. Four interminable hours."

Now, you may be a big fan of participative learning—in principle. But for this session? During its time slot, I'd look for you at the blackjack tables. And so would the person who's presenting it—which is why she actually wrote Version 1 of the program description, instead of something closer to Version 2.

Participatory training (PT) has been a fact of life in adult education since the advent of andragogy. It has been lauded as the only true way adults learn, as the universal antidote for dreary training sessions, as the most professional form of training and as the only interesting way to teach.

Truth be told, PT is no panacea. It is, in fact, a teaching strategy with a narrow range of effective applications. Applied correctly, planned well and implemented by a skilled trainer, it is

to be. Used poorly, it's a silly waste of time that can do more harm than good.

Unfortunately, the overuse and gross misuse of PT techniques have led to uncounted sessions such as the one described in our "honest" convention brochure, and to an understandable suspicion of any training session touted as a "facilitated experience." Further, suffering through sessions where PT is used inappropriately has led some trainers to abandon this valuable teaching strategy altogether.

PT is simply that: a teaching strategy, one more tool at the disposal of the trainer. As with any strategy, it must be applied to the right subject, with the right students, in the right situation and using the right teaching skills. It's easy to get caught up in the euphoria about participatory techniques without first identifying the purpose for them and without determining whether PT is the *best* strategy for accomplishing your objectives in a particular situation. The first step in reevaluating the usefulness of participatory training is to separate the fantasy from the reality.

The fantasy

It's terrifically appealing, this vision of the Socratic teacher, interacting with the learners and coaxing from them—through purposeful and extremely intelligent questioning—complex analyses and "Aha!" insights. The students revere the instructor; "awe" is not too strong a word to describe their regard for his wisdom. They are well-prepared, having done their assigned prework, so each question prompts a flurry of eagerly waving hands. Each answer is more insightful than the one before. When class is finished, half the students cluster around the instructor, hoping for one more drop of wisdom. The rest stand to the side, animatedly arguing points raised during class. The course evaluations are ecstatic: "Best teacher I ever had!" "Made learning fun!" "I really got something from this class!"

From the instructor's point of view, the fantasy is even more appealing when compared to traditional forms of training. No more lengthy lectures to prepare, no audiovisual equipment to requisition, no bibliographies to about the questions likely to be asked. Then you sit back and wait for the kudos to roll in.

The reality

In fact, the participative session may not work out so well. Your first questions will elicit only blank stares. No trainee will be dumb enough to make eye contact with you; that's asking to be called upon to answer a question. When responses do begin to flow, they rarely will be insightful or analytical. Most (partly due to the nature of your questions) will be self-evident banalities. Some will be downright dumb.

The students will not regard you with awe. In fact, it isn't unusual for a trainee to confront a trainer outright about the latter's apparent lack of preparation and effort. You'll be uncommonly lucky if half the students are actually prepared, and luckier still if more than three are willing to respond without being called upon or "pulled out." If they aren't required to stay, many will get up and leave. Two loudmouthed trainees will stay after class and waste your time for another hour while the remainder gallop for the exit the moment the minute hand reaches 12.

And the evaluations? Two will be glowing. Eight will be cautiously lukewarm. ("You can learn *something* in any educational experience.") Three will be scathing.

Separating the two

That description of "reality" is not inescapable, of course. But the training world's infatuation with the idea of participatory learning has led us to tell one another that the difference between the fantasy session and the one we keep running into in the real world hinges entirely on the trainer's facilitative skills. The fantasy *within* the fantasy is that it's all a matter of classroom management: A trainer with the proper "group competencies" will run an excellent PT session regardless of the course content or the circumstances; a trainer without these competencies will preside over a flop.

That's bull. Facilitation skills are indeed part of the answer—but only part. To be successful, participative training also demands intense preparation, the right circumstances, the right learning objectives and the right trainees. It demands that we understand each aspect of the participatory learning experience and that we exercise restraint in the application of PT. It demands that we separate fantasy from reality.

Fantasy #1. Students universally like participatory training, find it more interesting than lectures or other teaching methods, and feel it makes classroom time pass more quickly.

If they aren't required to stay, many trainees will get up and leave.

Reality. Participatory training actually only lends itself well to students with a relational, verbal learning style—roughly 50% of adult learners. Most trainers agree by now that there *is* validity in the concept of individual learning styles, and that those styles really do influence the way people learn. Yet we continue to overuse teaching strategies aimed at a narrow range of possible styles.

Excessive reliance on PT is no more justifiable than excessive lecturing. The analytical learner, who prefers the formal training situation with the instructor viewed as an information-giver, will be frustrated and uncooperative in a totally participative session. And analytical learners make up nearly half of the adult student population. Using PT for an entire session, then, will tend to alienate about half the trainees in an average classroom.

Fantasy #2. PT is an effective, stand-alone technique that successfully exposes trainees to one another's experiences and encourages the exchange of experience-based know-how.

Reality. PT is not an effective, stand-alone technique unless a host of criteria are met. The fact is, relatively few audiences are ripe for participatory training. The students must be well-prepared. A mix of trainee expertise should be present so they can learn from one another, and the instructor must be aware of the strengths in the audience. The group members must be aware that the course is to be participatory, and they should have done some "homework" beforehand so the discussion doesn't deteriorate into vague superficialities. The purpose of the training session ought to be to discover differing viewpoints or creative solutions, and the subject matter must lend itself to that purpose.

Even when all of these conditions converge—an unusual situation at best—the fact remains that no single technique is likely to stimulate all students in a given classroom.

Participation is a specific strategy, intended to be built into a course design to meet specific objectives. The only reason to use PT is that you've decided it will be the *best* teaching method to meet some of those specific objectives. And just as we would not conduct an entire course using nothing but case studies, brainstorming or role playing (all effective participatory techniques when used correctly) neither should we rely solely on class participation for effective learning.

Fantasy #3. PT sessions require less preparation time and are easier on the instructor.

Reality. We have a standing joke in our department whenever a guest speaker is late for a workshop session and we're afraid we'll have to wing it. "No problem," the stand-in instructor will say. "I'll just go in there and say, 'I believe you can all learn as much from each other as you can from me, so turn to your neighbor and start talking.' "

It's true that some PT classes—the bad ones—are easier on the instructor. Effective PT sessions, on the other hand, require much more prep time than does a lecture. In a lecture format, the instructor prepares specific information to be imparted to the students and prepares for a predictable set of questions or clarifications. When you're planning a participatory session, however, you have to prepare for any contingency that may arise. The progress of topics and questions must be designed to arrive at a predicted conclusion. You must be skillful at leading groups and have a working knowledge of group dynamics. PT

THE CONVENTION ZONE

BY JANET HOUSER CARTER

Unwilling to fly on Friday the 13th, I arrived at the conference a day late and missed the keynote address. So as I sat in the afternoon session, I used my peripheral vision to scan my neighbor's morning notes. What I saw nearly made me groan out loud.

At the top of the page, neatly printed, were the date, title of the speech and speaker's name. Next came the heading, "I. Examples of excellence in educational service," followed by an expectant colon. The rest of the page was covered with those curlicues, mazes and three-dimensional boxes that I recognized from the pad of paper next to my telephone back home.

Had I been a pessimist, I would have taken this as a sign to catch a cab to the airport posthaste and return home, where I could at least raid the refrigerator. But enough of the trainer lingered in the student to stick it out. Surely the keynote address was intended to inspire rather than to instruct. Surely the advanced sessions would be highly informative. Surely I could take better notes than that.

Surely not. The primary yields turned out to be a doodle pad of my own, guilt, more guilt and, finally, one decent idea to take home.

The first session, an overview of futuristic trends and general strategic directions, was one that had prompted my decision to attend. The instructor had impressive qualifications (meaning they were better than my own), the session's title was a grabber, the objectives were well-written and, of course, measurable. My expectations were dashed after only 12 words had escaped the speaker's eminently credentialed mouth: "I'm not going to teach you, I'm here to facilitate your learning."

You know the rest of the story. The session opened with a general question to the audience: "What are the major trends you have identified?" That was followed by, "And what do you see as happening in the next five to 10 years?" Then the climax: "What strategies will help us survive?"

Unfortunately, the students in this room were no more knowledgeable than I. At least a third of them deserted, an urge I resisted only out of compassion for the "facilitator" (that, and the knowledge that my only alternative was "networking," an option I rate somewhere below getting a Pap smear). Soon I, too, had a notepad full of squiggles.

The remaining sessions were better, but by minimal measure. The major problem was the way I felt when I left them—in a word, guilty. The session on "competency-based education" opened with a comparison of CBE and traditional training, a word much maligned at this conference. ("Training is what you do with animals; we *educate* people." These educators obviously had not seen some of my students.) The point of it all was that every minimally worthwhile *education* department relies solely on CBE. I made mental note of the fact that at least two of my company's programs were competency-based. However, the vast majority fell into the category of "traditional training" and were, therefore, unfit for human consumption. Guilt.

The next session, on organization development, opened with—you guessed it—a comparison of OD and traditional education. (By then, I wasn't using the word training. I subdue my sarcasm when surrounded by zealots.) It turns out that every minimally worthwhile education department relies solely on organization development. Three of my program definitely fall into the category of OD. As for the rest. . . . More guilt.

Networking, once I forced myself into it, was even more demoralizing. Every education department in the nation is doing more, with greater administrative support and a larger budget, than mine.

Major guilt. I always feel good about my department—how far we've come, our accomplishments, etc.—until I get around other training directors. Either I've entered the Twilight Zone or these people are hedging a bit. I suspect the latter. That's what I have to tell myself.

After four days of self-awareness, encounters, roundtable discussions and small-group work (which always makes my leg jerk), the conference came to an end. Eventually, I managed to assuage my guilt by coming up with the novel idea (at least to me) of "situational education." This theory, untested of course, is similar to that of contingency management: No single approach to education applies to all situations and programs. You have to match the way you're teaching or facilitating or developing to the needs of the learners and their particular situations. Some of my programs will be competency based, some will be OD and some will be (I'm willing to admit it) training.

By the time I left the conference I had reduced my guilt to a tolerable level.

The one decent idea to take home? It occurred to me while daydreaming during one of the sessions at which someone had the foresight *not* to give us doodle pads: Surely there's got to be some benefit from this experience. I'll write it up and send it to TRAINING Magazine. They'll understand.

Reprinted from TRAINING, November 1986

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usually requires overpreparation: You may have to shift into another teaching style if the participation plan bombs, as it sometimes will even if you're doing things right.

If the instructor is not prepared to guide the group to conclusions, the results can be disastrous. The session may end up to be no more than lists of alternatives that are practically useless in the absence of any analysis or critical review. Instructional goals are lost and the entire experience seems purposeless.

Participatory training *is* easier on the instructor physically: The teacher doesn't have to talk for the entire period and may even be able to leave the exercises or case studies. These may be prime considerations for trainers familiar with the aching feet and backs that accompany marathon workshops.

Fantasy #4. Participatory training fosters cooperativeness among participants rather than competition, and little ego gratification.

Reality. Every instructor who has used participation in the classroom knows the dreaded affliction of the motor-mouth monopoly. Chances are that any class will have at least one; some groups are "blessed" with several. Participation does give students the opportunity to feel good about themselves and their accomplishments. Trouble is, only a few will take advantage of the opportunity—and the rest will suffer while they do.

A PT session often becomes an open forum for patting oneself on the back, for exchanging war stories or for an elaborate game of one-upmanship. Instead of progressively analyzing a situation, participation becomes a mere recitation of accomplishments.

Fantasy #5. There are no dumb questions or dumb answers, only opportunities for clarification. The trainer should consider this when planning the session, and either ask questions with no wrong answers or express approval for any response whatsoever.

Reality. I'm sorry, but I believe there are such things as dumb questions and dumb answers. I have asked and answered a few myself. I once had a student ask me, after a lecture on infant crib death, if I knew of any babies who had survived the condition. At that point, I knew someone had seriously misled me on this "no dumb questions" business.

Further, I don't believe we are doing adults any favors by pretending that truly dumb questions and answers have merit. Acting as if an obviously wrong answer has value is patronizing to the student, insulting to others in the class and detrimental to the trainer's credibility.

This doesn't mean we have to ridicule or embarrass students. But how about saying simply, "No, I don't think so" and moving on to the next volunteer? That's sufficient to keep the class moving without humiliating a trainee. We certainly don't need to record the dumb answer on our flip chart or contort ourselves like Romanian gymnasts trying to find some whisper of value in it.

A word is warranted, however, regarding the *way* in which we solicit answers. Asking a nontechnical question that has only one correct answer is setting the class members up to fail. How many times have we all endured the interminable guessing game of trying to figure out exactly which word the instructor wants us to spit out? Participatory questions should be phrased in general terms and aimed at guiding students to general conclusions, not specific answers.

Fantasy #6. Participatory training lends itself to any topic.

Reality. PT works especially well only with particular types of topics. And it's downright contraindicated for some. It is best suited for subjects that encompass multiple, divergent viewpoints and are open to rational argument. It is with these topics that participation and dialogue are most valuable. Subject matter requiring creative solutions or consideration of several options is also well-suited to participation. Again, participatory training is effective only when there is a particular reason for the participation, and that reason is tied to the objectives of the class.

PT is *not* suited for highly technical subjects, for teaching skills that require memorization of precise procedures or for teaching material in which there is only one right answer. Participatory training is a waste of time when the learning objectives involve only knowledge or memorization. It should be reserved for the "higher-level" goals of analysis, evaluation and synthesis.

Fantasy #7. I can use participatory training effectively.

Reality. This one is no fantasy. Despite all these cautions, participatory training *can* be an effective and rewarding strategy when used judiciously.

But remember: PT is best used with adult learners who are predominantly relational in learning style; as one specific technique to achieve specific goals and objectives (as opposed to a universal panacea); by an instructor who is well-prepared and skilled in group dynamics; with topics that are open to argument, analysis and higher-level learning objectives; and with diverse groups whose members are prepared to participate.

Paradoxically, the one situation in which you are likely to find a diverse, verbal, knowledgeable group—a professional convention—is also a place uniquely ill-suited to participatory training as a sole technique. Generally it's impossible to ask that students be prepared for class; the characteristics and strengths of the group are usually unknown; and the time period is so limited that by the time the instructor *does* recognize the expertise in the group, the session is over. Also, convention audiences often are too large for strictly participatory training (PT usually is ineffective in a group with more than about 20 members). Yet a convention—particularly a training convention—is the one place where you'll find PT running rampant.

At the risk of tarring some hardworking and very capable people with too broad a brush, I'd venture to say that one reason for this is that so many presenters are consultants and would-be consultants who get themselves onto the faculty for the exposure value. In itself, that's perfectly legitimate: Some feel that exposure value comes from conducting an excellent session, and an excellent session might include PT. But for others, exposure value starts and ends with getting your name in the brochure and your face in front of a group: Once your proposal has been accepted by the sponsors, why do any research or put any real effort into preparing a solid presentation when you can just stroll in and spend the whole period hiding behind the sacred cow of participatory training? As I said earlier, *bad* PT really is easier on the trainer.

Our misguided convention speaker, then, would have a better chance of keeping you out of the casino with the following:

"An analysis of current trends in high-tech training systems. The presenter will summarize recent trends and predict future directions. Students will then be asked to participate in determining strategies for surviving and thriving in the future environment. Please attend this session only if you enjoy discussion-centered learning and are willing to review some literature prior to the class. Enrollment limited to 20. If you attend under these conditions, you will almost certainly enjoy yourselves and learn a great deal, as will the presenter. Four hours."

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A BLUEPRINT FOR SALESPEOPLE WHO REALLY SELL

A competency-based approach can help you hire and train sales reps who act like top performers, not like stereotypes

BY THOMAS ROLLINS

Ask any 10 sales managers if they know what it takes to succeed as a salesperson in their companies today. Nine of the answers you get will sound something like this: "Of course. I know this business and the art of selling like the back of my hand. I started as a field rep and worked my way up through the ranks."

Now ask, "Do you know the key differences between sales reps who thrive at your company and those who merely survive?" You'll get the same kinds of responses. And most of the respondents will be dead wrong.

This is the story of one large corporation forced by bad times to reexamine the ability of its sales executives to answer those questions accurately. To get the true answers, the company used a competency-based approach to study its salespeople. That means it focused on the characteristics of people who do the job *best* rather than on the specific tasks that constitute the job itself. Once it had the answers, the company designed competency-based hiring and development systems for salespeople.

This is a success story.

Dilemma

One fine spring day in 1987, the

tailer, a member of *Fortune's Service 500*, experienced a rude awakening. His company—we'll call it the XYZ Corp.—had always relied heavily upon the efforts of the commissioned salespeople in its stores. And some grim problems had developed. Companywide, the sales force's performance was mediocre; nobody seemed able to come up with a way to revitalize sales. Turnover among newly hired salespeople was extremely high; 40 percent of them were leaving within the first six months. And despite some concerted effort, Equal Employment Opportunity requirements still weren't being met. Because of flawed recruiting procedures, the company continued to add white males to a sales force that was almost exclusively white and male.

The CEO settled upon a plan of action and issued a statement to all sales managers and reps. In part, it read: "There is absolutely no doubt that our future depends largely on the success of our sales force. Because of our recent lackluster sales performance...we are going to start a process of looking at the factors sales representatives must attend to in order to be successful.... I expect each and every one of you to give this process your full attention and best effort. Our ability to continue offering you a profitable, stable place to work hinges on

As the consultants called in to help with this "endeavor," my colleagues and I were naturally delighted with that unambiguous display of support from the top.

Who are the supersalespeople?

We began by asking the company's six division heads for a list of the qualities they thought would distinguish the "supersalespeople" within the organization. We asked a large number of actual salespeople to do the same thing.

The composite laundry list of qualities looked almost exactly like the commonly accepted American stereotype of a good salesperson: extroverted, outgoing, aggressive, customer-oriented, good sense of humor, ability to develop rapport, competitive spirit and personal charisma.

But if managers and salespeople alike could so easily name the key ingredients of successful selling, why did XYZ have an underperforming sales force? And why did the company find it so difficult to improve its new hire "hit rate"?

The fact is, asking intelligent, motivated, seasoned managers and salespeople what qualities will lead to exceptional sales performance is a great technique for reinforcing company folklore, mythology and commonsense conclusions. But it has surprisingly little value in getting at the truth.

A different tack

How about a research-based approach instead? We convened a meeting with the CEO, a half dozen other top managers and the company's training officers. We asked them to come up with a list of XYZ's top-performing salespeople. Once they'd done so, the group looked at the names on the list and despaired of finding anything in common among these wildly different personalities. One character, for instance, went around in a zoot suit and cowboy hat, another in a three-piece suit with a gold pocket watch. Both sold like crazy.

At this point, as usual, it was tough to believe the basic premise of the competency-based approach: If you look hard enough at your top performers, a common success profile will emerge.

We gathered the group's nominasome hard numbers—weekly sales figures for each nominee. Then we gathered peer ratings, asking salespeople in each region to name reps with whom they liked to work. This peer rating was important because a supersalesperson may be selling at another rep's expense, and that can cause significant turnover problems.

We defined our population of "outstanding performers" as those whose names turned up on all three lists: those who had the best weekly numbers and were nominated by both the managers and their fellow salespeople.

Then we compared the outstanding group with a group of average performers: a like number of salespeople who had average sales records and weren't nominated by anyone. To do the comparing, we used a technique called the Behavioral Event Interview. The BEI is a data-gathering method developed at Harvard, based on the premise that the best predictor of future performance is past performance.

The person conducting a BEI does *not* use traditional interview questions or prompts such as: "Tell me why you think you're qualified for this job.... What evidence can you cite that will convince us you are a cut above the other candidates we're interviewing?.... Describe your top three strengths and your top three weaknesses."

Instead, the BEI interviewer asks the subject to think back over her recent work history (12-36 months) and to describe, in painstaking detail, high and low points in her sales career.

Interviewers visited the outstanding and average XYZ sales reps in their own milieu—showroom, office, warehouse—spending several hours with each rep, asking for examples of high points and low points. The interviewer would walk the rep through a series of sales situations in detail, getting the actual dialogue, feelings and thoughts relevant to each situation.

The questions ran along these lines: What makes this particular situation stand out in your mind? What were the events that led up to it? Who was involved? What was your objective? What were you thinking at the time? What did the customer say at that point? What happened next? What was the final outcome?

Once all the interviews were complete, we were able to isolate characteristics or behavior patterns that turned up *only* among the salespeople in the outstanding group. These characteristics are known as "differentiator competencies" because they distinguish outstanding performers from average ones. And the word "competency" is not used casually here; it emphasizes, again, that the focus is on characteristics of people who do the job best, rather than on job tasks in and of themselves. A job task analysis can break down the specific things that must be done in order to perform a given job, but it tells you nothing about the people who do the job best.

XYZ was in for some surprises. For example, just about everyone agreed at the outset of the project that "aggressiveness" was extremely important for success in sales. The BEI interviews showed that the top performers weren't aggressive with customers at all. (They were, however, highly energetic—a quality that may be confused with aggression.) Instead, it was the average salespeople who sometimes got aggressive—usually when it was clear that they were failing to make a sale.

The outstanding salespeople were mainly interested in what the customer wanted. Their common attitude was, "I don't sell anything; the customer buys from me."

These top performers were also very time-conscious and concerned about doing things as efficiently as possible. They would mention the specific amount of time various activities took. They'd say things like, "If I don't make a sale in the first 10 minutes, I turn the customer over to someone else."

The outstanding sellers set personal standards for their own performance; they had their own goals. If the company set them a sales quota of X dollars, they would set personal quotas of X + Y dollars.

The top salespeople spent much of their spare time in sales-related tasks. For example, when things got slow, they'd write follow-up or thank-you notes to customers. The average ones would spend their spare time reading magazines or doing something else unrelated to selling.

We finally generated a list of 15 competencies that differentiated outstanding salespeople from average ones. Although this exact wording wasn't used, here's a sample: energetic; very interested in what the customer wants or needs; highly time-conscious; sets internal standards for own performance; spends spare time in sales-related activities; able to size up probability of the sale quickly and accurately; follows up with customers as promised; puts forth extra personal touches.

Certainly this list overlaps in some respects with the original characteristics brainstormed by XYZ's managers and reps, but notice that it has a distinctly different flavor and focus.

Competency-based methods

XYZ acted on these findings by modifying its current selection and development processes for salespeople. In the hiring process, for example, personnel specialists began using a one-hour version of the BEI. Applicants were asked to give specific accounts of things they had done well and things they would do differently today, given the wisdom of hindsight. Interviewers listened carefully to see if any of the desired competencies turned up in the candidates' accounts, whether in a sales context or not.

For example, an applicant might say, "I feel good about improving my jogging time. I upped my time when I started to check how fast I was going halfway around the track, instead of every few laps." The interviewer would give the applicant credit for demonstrating "time consciousness." Another candidate might lose credit in the same category by talking about wasting time without showing concern about it.

Before long, managers noticed that XYZ was hiring a different breed of person for its sales force. In the past, interviewers had hired mainly on the basis of previous sales experience, a criterion rejected by the study as useless for differentiating outstanding performers from average ones. Now the interviewers were listening for competencies that weren't necessarily specific to sales at all. The company was hiring more people with no sales background—and more women. Ultimately, previous sales experience was discarded completely as a screening criterion for applicants.

Return on investment

XYZ invested $80,000 in the competency-based selection and development project—no small potatoes. What did the company get in return?

Historically, the economic benefits

of "human resource" interventions (developmental programs, training courses, communication initiatives) have been considered difficult, if not impossible, to quantify. But in truth, the paybacks of many interventions *can* be identified and quantified—and certain XYZ managers knew how to do it. This project had a number of intangible benefits, but here are some tangible results, together with the company's calculations of their dollar value:

Benefit #1: Better hires. New salespeople hired under the competency criteria proved to be more productive than the people already on board.

At the start of the fiscal year, XYZ hired 30 new salespeople, using the competency criteria as opposed to the traditional selection method. At the end of the year, these 30 reps had sales averaging $5,000 per week, vs. $4,200 per week for the rest of the sales force.

Given gross margins of 30 percent, the additional $800 per week brought in by each new rep produced a $240 per week benefit to XYZ. Over 12 months, the new selection system earned XYZ $360,000 ($240 per week x 50 weeks x 30 people).

Benefit #2: Lower turnover. The new selection method was better than the old one at picking people who would be successful in XYZ's sales force. Fewer people left because fewer who were ill-suited to the job were hired in the first place.

With the old selection system, the turnover rate among XYZ's new salespeople had been running at 40 percent. By the end of the first year, the 30 reps selected under the new criteria had a turnover rate of 20 percent. In other words, the company held onto six new hires it probably would have lost under the old system. Going by Lyle M. Spencer's figures in *Calculating Human Resource Costs and Benefits: Cutting Costs and Improving Productivity*, the replacement cost for each of those six people would be about $20,000. Therefore, XYZ saved $120,000 in the first year.

Benefit #3: Existing staff improved. The competency-based approach boosted the overall productivity of salespeople who already were on the job before the program began. Why? Because underperformers could be reeducated regarding what it takes to be more like outstanding performers. Furthermore, disruptions caused by firing or disciplining underperformers were reduced, because these problems occurred less often.

XYZ's sales managers were convinced that the current sales force's average production of $4,200 per week was lower than it ought to be. They attributed the problem to several factors, including low morale, the distractions caused by high turnover, burnout among some reps and lack of valid knowledge about which behaviors had the greatest impact on success.

XYZ put the entire sales force through a brief training program that gave them a "blueprint for success." The training was competency-based: Again, instead of focusing on particular aspects of the job, it addressed the characteristics and behaviors of people who do the job best. For instance, to help trainees learn through social modeling, real-life incidents from the experience of outstanding XYZ salespeople were presented verbatim from the BEI interviews.

Six months after this training effort was completed, management found that the sales force's average weekly production had risen to $4,620 (no product prices increased during the period). This translates into an increased gross revenue yield of $2,100,000 per year (100 reps x 50 weeks x $420 per week).

Benefit #4: Management is freed. The productivity of managers and supervisors increased because they spent less time dealing with the problems created by underperformers. Fewer underperformers were being hired, and many existing ones could be reeducated about how to do the job.

Because of high turnover and the significant number of underperformers in the sales force, XYZ's managers and personnel people spent a lot of time dealing with issues like hiring, firing, orienting new people and wrestling with problems created by poor performers. Once the new selecti system was in place and the existi sales force had been retrained, t management time spent on these ma ters dropped from eight hours per wee to four per person (counting three sal managers who made $65,000 a yea and one personnel manager a $45,000). None of those four jobs wa eliminated because of the reduce administrative burden, but the sale managers were able to spend mor time developing new strategies an creative new sales campaigns.

The total costs saved over a 12 month period due to that drop in waste time was $72,000 (four hours save per 40-hour week x $720,000 full labo cost). Note: Full labor cost considers a person's salary plus total fringe benefits plus overhead. A good estimate of the full cost of one day of your time is 2.7 x salary cost per day worked (your annual salary ÷ 230 days) or three x your salary cost per day paid (salary ÷ 260 days).

The total benefits derived from the competency-based selection and development program, which required an $80,000 investment, were $2,892,000. XYZ's return on investment was over 3,500 percent.

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WHERE'S THE LINE BETWEEN TRAINING AND INTRUSION?

Employers call it personal development. What happens when employees call it something else?

BY JACK GORDON

Look out! It's a blast from the past! And it's souped up hotter than ever. Fuel-injected by religious fervor, painted candy-apple red by lurid accounts of New Age gurus wielding mind-ripping "psychotechnologies," positractioned, supercharged, drag-slicked and four-on-the-floored by a chaotic business climate in which, as Tom Peters likes to put it, nobody has a sweet clue what the hell is going on, a golden oldie has rematerialized on the corporate-training scene. Here it comes again, laying rubber across our ethical parking lot and screeching to an ominous halt before us, smoking like the ghost of a '69 Impala SuperSport.

The grand old question has a thousand nuances, but at bottom it is this: Where is the line between legitimate job-related training and an unwarranted intrusion into employees' personal selves—their minds, their hearts, their personalities, their souls?

Religious objections to "brainwashing" techniques used in some so-called New Age training programs have attracted a great deal of publicity for the past two years. But in fact they are only the latest flame decals pasted to the doors of this particular vehicle. "Are T-Groups Brainwashing Sessions?" asked the headline of a 1971 feature in TRAINING Magazine. "Yes" and "No" argued the two entirely secular articles that ran beneath it.

For that matter, the more exotic flora and fauna in the training jungle—the sensitivity groups of 20 years ago or the "guided visioning" of today—have always served only as splashes of bright primary color in an ethical landscape whose fundamental themes are painted in shades of gray. You can look at those themes from three basic standpoints.

Moral: Does an employer have an ethical right to teach, encourage or mandate anything other than the observable behavior employees must exhibit while performing their jobs? If so, what? Does an organization have any business even addressing its employees' personal beliefs, attitudes or values? How about trying to shape them? How about dictating them? And given the employer's multifaceted power over the employee, where are the lines between addressing, shaping and dictating? Surely to "make available" a personal-growth program of almost any sort can be no more unethical than allowing an employee to study philosophy under a tuition-reimbursement program. But what pressures are brought to bear on the person to avail himself of this opportunity?

Are you a behaviorist? The humanist will argue that you're a fraud, merely pretending not to deal with what goes on inside people's heads. In fact, you're shaping values when you shape behavior. And if you took the trouble to examine some of the values implicit in the behavior you're shaping, you might be appalled.

Are you a humanist? The behaviorist will ask at what point humanism becomes paternalism. Going to build a better person *and* a better employee, are you? Blissfully certain, are you, that you know just which traits this better being ought to have? You're a friend of humanity, are you, when you set out to hot-wire the human soul to some company's five-year strategic plan? Oh, you're not trying to do *that*, hmmm?

Pragmatic: When an organization sponsors a program intended to help its employees become better people in some sense, instead of just better workers, it does so expecting that they will be grateful—that loyalty, morale and productivity will increase. At what point does such a program backfire, producing resentment instead?

And here's another pragmatic question: Do trainers, consultants or motivational speakers—New Age or otherwise—really have the power to effect lasting, fundamental changes in the personality or core beliefs of the average adult? Even a willing adult, let alone a recalcitrant one? Isn't it likely that most of the dramatic testimonials for "transformational" training programs come from people who were predisposed to love them? Ought we to be more amused than alarmed by the grandiose claims of most of these programs, as well as by the complaints of those who fear they'll be unwittingly transformed?

Legal: What kind of thing is going to get a company dragged into court? Slippery though legal questions are, they're easier to deal with than the other two types. (See the accompanying story, "The Line and the Law.")

Where do you draw *your* lines?

You might as well know going in that you'll find more questions here than answers. Management theorist Frederick Herzberg once said that if you want your employees to be more motivated and productive you should give them more interesting work to do. That option lies outside the scope of this article. But as we dive into the quagmire, you might want to keep it in mind.

The "holistic" observation that people's professional selves and their private selves are not clearly distinct but are in many ways inextricably interwoven is perfectly true. But it is also a platitude. Unless you take it to mean that there is no such thing as going overboard in an attempt to mold human beings into shapes considered desirable by their employers or admirable by their employers' agents, the truism is not particularly helpful here.

So if you're looking for a neat, clean description of where the line is, find somebody who is willing to draw it between overt behavior and covert mental processes. "I'm offended by organizations that purport to have the right to tell people how to think or feel or what their values must be," says Jack Zenger, head of Zenger-Miller Inc. of Palo Alto, CA, a training and consulting firm.

"I don't think a company or government agency has the right to say, 'Be optimistic,' or 'Be enthusiastic,' or 'Don't harbor prejudicial feelings,'" Zenger continues. "What we can dictate is behavior. We can say, 'You can't make comments that are prejudicial to someone's race or religion,' or 'You must behave in accordance with our policies.' Employers have the right to tell their people how they may act toward subordinates, peers or customers, but not how to feel about them."

There is a pragmatic corollary to that ethical stance. It has to do with a question psychologists have been debating since the earth cooled: Does attitude drive behavior or vice versa? "When you want to change attitudes, the best way to do it is to change behavior," Zenger maintains. "There is some truth in the idea that changing attitudes will change behavior, but there's much more documented evidence that it works better in reverse: Go for behavior change, and attitudes will change in the face of that. [For example], laws have changed the behavior of white males working with blacks and women, and attitudes are changing because of that. It didn't happen due to sensitivity-training courses."

There you have it—a clear ethical guideline with a neat side benefit. Trouble is, people who feel differently will pick up the pragmatic argument and use it to beat the ethical one over the head. "By dictating behavior, you *are* promoting values," says consultant Pat McLagan of McLagan International in St. Paul, MN. "All policies and procedures are driven by values. Some behaviorists think they're functioning in a valueless way, but it's not true." You could argue, she says, that ous way to shape or dictate attitudes. If so, it's clearly more ethical "to be up front with people about addressing values."

McLagan, too, has a pragmatic case to make. In an industrial economy where most work was characterized by visible, repetitive tasks (attach car bumper to car body), you *could* explain and dictate precisely the "behaviors" you wanted, she says. In a service-dominated economy full of so-called knowledge workers, you can't. When doing the job well means responding thoughtfully or imaginatively to a variety of situations—what Jan Carlzon of Scandinavian Airlines System calls "50,000 moments of truth" in dealing with customers, for instance—you can't tell people exactly what to do in every one of those moments. You have to talk about the values you want to guide their behavior.

"What companies want today is creativity and continuous improvement," McLagan says. "How do you get people to think systematically—not just about this department or this financial quarter, but about the whole company and about 10 years down the road? You have to deal with values: focus on the customer, financial integrity, continuous improvement."

Unfortunately, this doesn't so much resolve the basic issue as raise the question of what we mean by beliefs or values. "Focus on the customer" is clearly a business value, not necessarily a personal one. It implies a set of general guidelines for work-related behavior: be polite, be pleasant, be helpful, go the extra mile. Even if a company vows to focus on the customer "with a passion," it is usually talking about how employees will be expected to behave toward customers, not dictating how they must feel about every customer in their private hearts.

"When you expect people to internalize a value, that's an ethical danger zone," says McLagan, essentially falling back to Zenger's position. "When you ask people to start performing internal processes in a particular way, that's dangerous."

But again, "internal processes" is a muddy term. McLagan doesn't mean, for instance, that it's unethical to teach principles of logical or creative or strategic thinking. "There are a lot of gray zones," she says. If you're in a touchy area, maybe the best ethical advice is and to be open about it. "Share [the issue] with people. Expose it for them to see."

A lot of people say the ethical line lies in the difference between talking about personal values and trying to dictate them. In many training situations, "to steer clear of values is like trying to ignore a big elephant in the room," says Peter Krembs, a Minneapolis consultant who specializes in working with supervisors of technical operations. "For instance, you find people with anti-war values working for defense contractors; it happens all the time. Saying, 'We can't talk about that,' is just sticking your head in the sand." But at the same time, he says, "Internal values are sacred. The organization must respect the individual's beliefs."

Len Nadler, recently retired head of George Washington University's doctoral program in human resources development, agrees. "A salesman for a tobacco company faces ethical questions," he says. "So does a production worker making nerve gas. As a trainer, you can't duck those questions.... But I don't believe I have any right to tell people, 'This is the way you must feel about it or else.' I can only explain the options."

From a company's standpoint, the trouble with drawing a distinction between addressing personal values and trying to dictate or change them is that the distinction lies almost entirely in the hands of the person doing the addressing. The institution essentially delegates the ethical dilemma to individual managers, trainers or consultants. And you can't judge by the official descriptions of the methods they use. A whole galaxy of techniques are described with phrases such as "helping people examine their choices" or "helping them to understand their own true potential." In some hands, a given method works that way; in other hands, it may be extremely intrusive—perhaps even psychologically dangerous.

Consider two differing views of what sensitivity training was all about. As Zenger sees it, "Some of today's New Age stuff carries the same danger that came out of the old sensitivity-training stuff. You destroy people's personalities in the expectation that when they rebuild them, they'll be better people. Only sometimes they can't rebuild them."

Reports from the early '70s suggest

fair description of what went on in some sensitivity-training sessions, and that at least a few people were seriously wounded. But Nadler maintains that the danger lay not in the basic idea—which was not to tear people's psyches apart—but in the way the idea was sometimes carried out. "Sensitivity training, done right, was simply a matter of saying, 'Take a look at how you behave and what can be done about it.' [Responsible group leaders] said, 'We're not therapists. Therapy starts with the premise that a person is sick. We don't start there.'"

Some practitioners did and still do start with that premise, however. And for many people, any outright therapeutic approach to presumably healthy, functioning adults is definitely over the line in a job-related situation. Last year, TRAINING received a manuscript from a woman who quit her job in a corporate training department after a dispute with some consultants brought in by the company's chairman. As she tells it, "This consulting firm takes the position that we all need reparenting. We are all insecure—especially the CEOs and executives. In fact, she [the head consultant, a psychologist] looks for and digs up these insecurities in her private executive 'sessions.' I say if [people] are functioning and have compensated for their past problems, leave them alone. If they need a therapist, keep it out of the workplace. It's not really anyone's business if I had an alcoholic father and a suicidal mother if my work is good. Yet this is what she instructs the mentors (in yet another of her OD [organization development] programs) to ask about and probe for when they meet with their protégés."

What about more mundane cases of value shaping? Take a manager who places a high priority on teamwork and team spirit, and pit him against a subordinate with a high achievement drive—an engineer, say—who wants to work on her own projects in her own fashion. "Just get out of the way and let me do my job," she says (or thinks). "I resent you trying to shove all this team 'rah-rah' down my throat."

Krembs argues that the engineer is on the ethical high ground here unless the manager has specific, job-related

THE LINE AND THE LAW

BY JACK GORDON

Quit worrying about ethics, pragmatism and common sense, and you're left with the question of whether a training program will land your organization in legal trouble.

To begin with, of course, alarm bells ring if the program asks your employees to do anything that is blatantly life-threatening, illegal or morally repugnant. Unless you're yearning to be the defendant in a major lawsuit, don't send people to a seminar that offers growth experiences involving Russian roulette, robbing convenience stores or breaking commandments with farm animals.

After that, things become less cut and dried. According to Judith Keyes, a partner in the San Francisco law firm of Corbett and Kane, which specializes in employment law, the danger zones for training programs are about the same as those for employment policies in general. The key themes are "protected characteristics," job-relatedness and reasonable accommodation.

Start with two elements: a training course you will require or pressure your people to attend, and an employee who doesn't want to go. From a legal standpoint, the first question is, does the individual object on some protected ground? "In order to get to court," Keyes says, "the employee has to take the position that some statute has been violated. He can't just say, 'I don't like it.'" To have a legal case, the person must argue, for instance, that the program conflicts with his religious beliefs or discriminates against him (showing a "disparate impact," for example) on the basis of sex, race, creed, color or national origin.

In some places and situations, an employee also may argue that her privacy is being unreasonably invaded. The rules differ between private employers and government agencies. They also vary according to factors such as whether your state has a right to privacy written into its constitution.

If somebody objects to the training program on the basis of a protected characteristic, the employer is required to demonstrate that the program is related to the individual's ability to perform his job. There is some latitude in this area, but the connection to the job has got to be stronger and more direct than just a "hunch or gut feel" on the employer's part that the program will boost productivity or morale, Keyes says. The boss can't demand that the worker attend a personal-growth seminar just because the boss happened to like it.

But Keyes stresses the point that the issue of job-relatedness does not arise unless an objection is based on protected grounds. There is much confusion about this, she says. Suppose a company demands that everyone learn to make clay pots and hum Barry Manilow tunes. Suppose it requires all middle managers to participate every morning in a rousing company cheer Suppose it only promotes people whose favorite color is red. Employees may resent these policies rather actively, but resentment doesn't give them a legal case. The company doesn't have to explain what any of them have to do with job performance unless somebody can find a way to raise a religious objection or demonstrate tha the policy discriminates on the basis of sex, race, etc.

What about the employee who objects to a training program on religious grounds? Even if the employer can successfully articulate job-related reasons for the program, Keyes says, the employer still must make an effort to "reasonably accommodate" the employee's objections. This can mean explaining why it would be an undue hardship on the company to send th person to a different training program that accomplishes the same goal, or t excuse the person from the course or from some objectionable segment o the course.

The courts have deliberately defined religion quite broadly, Keyes says "Moral or ethical beliefs, strongly held" may count as protected religiou beliefs under a 1965 Supreme Court decision.

Requiring employees to attend a religious service is pretty clearly illegal. Keyes cites a September 198 reasons for pursuing the matter. "It's incumbent on the manager to have reasons why it's essential to *this* job to work in teams," he says. "If the manager can't make that case—if he just happens to think teams are a neat idea—he has no business trying to impose team values on this person."

Let's muddy the water. If you were looking for someone to argue with Krembs' assessment, you'd expect that Larry Wilson might be a good bet. Wilson runs the Pecos River Ranch, an outdoor experiential training center near Santa Fe, NM. His name has been mentioned (much to his displeasure) in some national magazine articles about "New Age Gurus." Programs at his ranch feature blind-trust falls, treetop team-building exercises, and lots of group hugging and cheering. "We help people look at what we call rational vs. irrational thinking," he says. Rational thinking is "the kind of thinking that helps you achieve your goals, feel better about who you are, avoid conflict, promote better health and help you grow." Irrational thinking is the opposite.

In other words, New Age or not, this is a guy who is unabashedly out to build better people (though he might argue with that phrasing), not just to teach some job-specific skills. This is also a guy who thinks very highly of teamwork. So you'd think he would side with that manager against that engineer, job-specific arguments be damned.

You'd be wrong.

What we have with that engineer is a variation on a classic character in training literature: Old George, the crusty technician who is great at his job, but doesn't get along with his co-workers very well. The classic solution is to give George some interpersonal-skills training. The current enthusiasm for teambuilding is just grease on the slide into an attitude-readjustment session. Trainers and managers have *always* seen George from a quasi-therapeutic perspective—as a problem that needs to be fixed.

Wilson, the alleged New Age personality invader, offers what may be the least intrusive take you'll ever hear from a trainer on the subject of old George. "In the first place," he says, "I wouldn't espouse a value that says we

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decision by the Ninth Circuit Federal Court of Appeals in the case of Equal Employment Opportunity Commission (EEOC) vs. Townley Engineering and Manufacturing Co. The company required its employees to attend Christian devotional services at its Eloy, AZ, plant. One employee, an atheist, demanded to be excused. The company argued that the worship services were job-related because its owners had made a "covenant with God" that they would run a "Christian, faith-operated business." Under the terms of this covenant, the owners *had* to hold the services and everybody had to go. By way of accommodating the atheist's objection, the company said he could wear earplugs and read a magazine during the services if he wished—but he had to show up. The court decided this wasn't accommodating enough, and ordered the company to excuse him altogether.

In that case, however, there was no question that the objectionable event was a religious service or that attendance was mandatory. Things get stickier when a company claims that a training program is strictly secular while an employee claims it amounts to religious indoctrination. Or when the company claims that attendance isn't mandatory but the employee says he is being pressured to participate.

This is often the pattern with the recent rash of religious complaints about so-called New Age training programs. New Age is a slippery term attached to a wide variety of seminars and self-improvement courses. The sponsors often deny that the term applies to them, usually deny that they are in any way encroaching on religious territory, and always are appalled to hear their programs lumped with many others labeled as New Age.

In February 1988, the EEOC issued a policy statement that referred specifically to "New Age" programs. Although no court rulings have yet come down in New Age cases (one highly publicized suit filed by the former sales manager of a Tacoma, WA, car dealership in 1987 is scheduled to come to trial December 1989), the EEOC said it intends to treat religious objections to such programs under the traditional guidelines of Title VII of the Civil Rights Act of 1964.

In other words, when a purportedly secular program is religious in the eye of any beholder, the company is on dangerous ground. If an employee says, for instance, that a training program is pushing "secular humanist" beliefs that conflict with her Christian beliefs, the EEOC will be inclined to treat the complaint as a legitimate religious objection. The company likely will be asked to show how the program relates to job performance and to make some reasonable accommodation for the employee.

It can all get pretty Byzantine. One lawsuit filed in December 1988 in federal court in Atlanta appears to involve a case with more plot twists than a season's worth of "Dynasty" episodes. According to *The Wall Street Journal,* the suit was brought against the DeKalb Farmers Market Inc. by eight former employees who say they were fired or pressured to quit their jobs after objecting to the Forum, a nationally franchised course created by est-founder Werner Erhard, and some separate programs run at the market by Consulting Technologies Inc. of North Miami Beach, FL.

The plaintiffs say the programs conflicted with their religious beliefs, which range from Christianity to Hinduism. One complainant also alleges that she was asked in one of the programs to confess intimate details of her sex life.

DeKalb denies the charges. Employees were encouraged, but not coerced to attend the Forum, the company says. Consulting Technologies' programs did not deal in religious ideas or even philosophical ones, it says, and therefore could not have unreasonably impinged upon anyone's religious beliefs. *The Wall Street Journal* quotes a representative from Consulting Technologies as saying her firm is "not at all New Age." Sponsors of the Forum say they would never sanction coercing people to participate in the program.

all have to get along if it means we all have to go along. George won't play our team games? He's idiosyncratic? Let's accept him and appreciate him for what he is. *We're* the ones who can make the situation productive or counterproductive.... The real answer is, love George."

An appealing response, especially if you think of curmudgeons as a persecuted minority. And it would be even more appealing if it didn't just throw us back to the sticky question of how far one ought to go in trying to get the other team members to love George.

What's good for General Motors is good for...what? The human soul? Ah, there it is, the creeping uneasiness that underlies many ethical arguments about organizations mandating training that deals in personal values. In the name of helping employees grow, perhaps even with the best of intentions, the company may simply be trying to "rewire" people to suit its own impersonal ends.

Geoff Bellman, an independent consultant in Seattle, argues that the intention of most value-laden programs today is exactly the opposite. "What I'm hearing is, 'What's good for the individual is good for General Motors.'" In the training community, if not the business world in general, he says, the thrust of all the talk about values is this: "Organizations ought to be in service to people. If what's happening in a company isn't good for people—if it's merely tolerable—then the company ought to pursue ways to do what it does by means that *are* good for the people who are a part of it."

Bellman's point is unarguable. That is certainly the thrust of all the talk. Unfortunately, it does not answer the question of what is "good" for people.

Consider. With a multitude of baby-boomers choking the promotional channels in organizations, a lot of middle managers are finding their career ladders blocked. One popular solution was stated as follows in a manuscript submitted to TRAINING: Employees whose careers have plateaued "must be retrained to feel good about the contributions they make to the organization" in the jobs they've got.

Obviously, a great deal would depend on what is meant by retraining. But play that statement as it lies: Does it suggest an admirable goal or a horrible one? Even assuming you're going to stay in the dead-end job, does it enrich you or diminish you to be "trained to feel good" about it?

There is a tricky distinction to be made between teaching skills or principles that people can use to behave or even think in a certain way (logically, creatively, positively) and pressuring somebody—with an employer's authority—to adopt a particular way of relating to life ("*be* a positive thinker"). Let's agree that, provided this distinction can be drawn and adhered to, we have no ethical problem with the idea of teaching the skills.

But what about insisting that employees "become" certain things? Are there *any* personal attitudes, values or beliefs that employers unquestionably may try to instill in their employees with no ethical qualms whatsoever? Is there any attribute so non-controversial, so unarguably "good" for everybody, that the organization may—like a veterinarian administering a pill to a sick cat—ignore the hissing and try to shove the thing down people's throats? (We do have a dismissive description for that hissing, after all: We call it "resisting the learning.")

Let's frame the question a little differently, because it's not just a matter of whether any virtue, carried to an absurd extreme, can become a vice; of course it can. Nor is it a matter of whether we are soap-opera villains whenever we try to encourage a virtue in someone. The question: Are there are any attributes so undeniably wonderful that we are beyond the realm of rational argument when we assume that virtually everyone—with the ex-

A PLAGUE ON BOTH THEIR HOUSES

BY JACK GORDON

The battle between fundamentalist Christians and "New Age" trainers over what kinds of programs are legitimate to run in a corporate-training setting amounts to a "growing metaphysical holy war," according to Dudley Lynch, president of Brain Technologies Corp. of Ft. Collins, CO. And both sides are on the wrong side.

In doing research for a recent book, Lynch says, he and co-author Paul L. Kordis "found evidence to suggest" that:

- Both fundamentalist Christians and New Agers are trying to force their opposing brands of "metaphysics" onto corporations and their employees.
- Both sides present a threat to productivity and problem solving since "members of both groups tend to be sacrificial or sabotage-oriented when confronted with difficult business issues that may require transcending dogma to create choice."
- Members of both groups often have "strong accumulations of repressed anger created by personal impotence that can prevent consideration and implementation of alternatives."
- In general (and only up to a point), New Agers are more skilled than fundamentalists at "processing complex issues." However, New Agers "bring powerful feelings of loneliness and sadness to training programs. This should be policed carefully, since only so much feeling content can be dealt with effectively in the corporate training setting, with all of the varying belief systems usually present."

An organization's leaders should be "cautious, but not intimidated by either of the metaphysical camps," Lynch says. "Both the fundamentalist Christian and the New Age world views can place blinders on our abilities to determine with power and clarity what is real, what is needed and what is just."

His advice to managers confronted by employees with religious objections: "Let them choose whether to participate in training programs where beliefs and 'thinking systems' are an issue. And never forget that this is an emotional, not a substantive issue, [one that offers] little hope of resolution."

The book, called *Strategy of the Dolphin: Triggering the New Thinking Skills You Need to Succeed in a World of Incessant Change*, was self-published in 1988. Lynch says it has now been picked up by William Morrow & Co. and will be issued in June—as a Literary Guild alternate selection, no less. Yes, this issue *is* getting hotter.

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ception of those few extremists—is currently deficient in them? What trait can we say the vast majority of adults need "more of" than they've got now, without fear that anyone but a crazy person might disagree?

How about positive thinking? No, too many rational people cite too many disasters blundered into by positive thinkers. The trait cannot be considered unassailably superior to skepticism. Some even claim that the business world already has too many positive thinkers for its own good.

Diligence, thoroughness, enthusiasm, goal-directedness, a capacity for teamwork, a willingness to take risks? In an essay reprinted in the January 1989 issue of *Harper's* magazine, an apparently sane killjoy named Esther Vilar argues that all of those traits in fact may be signs of stupidity:

"Diligence is a highly praised quality, but it also implies dedication to a single purpose at the expense of all others. Isn't such renunciation easiest for those who aren't tempted by anything else? Who don't have to renounce anything?....

"Enthusiasm is a wonderful quality. But surely a person who summons up the same excitement, year after year, for the same product, the same idea, the same activity, the same sequence of movements, is unimaginative to an extraordinary degree....

"And courage, the willingness to take risks, who could possess this virtue more securely than an enterprising fool with little or no awareness of the dangers he might encounter? Or a person who cannot even conceive of the disaster he might unleash by an error of judgment?"

And so on.

What of openness, a consistent readiness to disclose one's personal thoughts and feelings, to achieve intimacy quickly and easily? Actually, plenty of people will tell you that what our society lacks is not openness but reticence. Many Europeans are reportedly appalled by casual conversations with American strangers (on airplanes, for instance) during which the American spills her guts and expects the European to do no less.

How about high morale? Surely nobody will quibble with the assertion that the best performers are those who identify most strongly with the organization's policies and practices. Sorry. Performance theorist Thomas Gilbert conducted by the U.S. Army that found a negative correlation between morale and performance. "The best performers knew how screwed up the army was," he laughs.

Just as well, maybe. From a pragmatic standpoint, trying to tell people who think they know better that the morale problem or the communication breakdown or the lack of stick-to-itiveness around here is due to their bad attitudes and not your idiotic policies is notoriously likely to backfire.

Which returns us to the question of whether one is trying to fix the employees or fix the organization. Tom Peters, of *In Search of Excellence* fame, says he sees no ethical problem in talking to employees about values or lifestyles, "but when people have the self-importance to assume they've got the 'right' set of values for a person—or even an organization—to have, it's more funny to me than anything else."

It is "perfectly legitimate for institutions to try to change people's minds," says Peters. But, he adds, over the past few years he has come to believe that "all the attitude change and cultural change and 'visioning' stuff doesn't matter if you've got a 900-page policy manual and eight layers of management."

If what you're after is greater participation and involvement by the employees, Peters says, it's not their attitudes you have to worry about so much as that manual and that cumbersome management hierarchy. It is largely because organizations fail to understand this, and because company leaders fail to model the values they preach, that "99 percent of all the consulting and training money that has gone into culture-change programs over the past five years or so has been pissed down the drain."

How do you know when you've stepped over the line? The legal and pragmatic indicators are pretty clear. You get sued. Word creeps back to you that some of the people you were trying to motivate wish you would take your personal-growth program or your daily team cheer and stick it where the sun doesn't shine.

Ethically, it's tougher, even in the more dramatic cases. Peters, for instance, is inclined to shrug off the arguments of people who fear that their religious beliefs will be insidiously undermined or shattered by the New Age gurus. "If we actually had tools so potent that we could bring about change in people with some degree of certainty, then the ethics of using them would be a more serious question to me," he says. "But I think the chances are not very high that you can take the average adult human and send him to a training program that will damage his basic belief system in some fundamental way.... The odds that Moonies will take over General Motors are pretty slim."

The only situation he's seen that gave him some serious qualms, Peters says, was not a New Age program featuring meditation or self-hypnosis but a classic behavior-modification effort in a distinctly un-New Age company. "[It was] the Tupperware stuff we wrote about in *In Search of Excellence*. All the awards and badges.... [Tupperware] was dealing with a population of homemakers going into the work force for the first time, who might have been modestly vulnerable. That felt more like the dark-side-of-the-moon phenomenon than anything else I've seen."

But insidious psychotechnologies or not, people don't need to feel threatened by a program in order to feel offended or infringed upon by it. The training director for an East Coast division of a national retail chain says she is refusing to cooperate with her company's plan to put the division's employees through a course called "Investment in Excellence," developed by Louis Tice of the Pacific Institute in Seattle. Employees in the West Coast region have responded enthusiastically to the program, she concedes, and management has agreed not to force anyone to attend against his will.

Management has not agreed, however, to put a "disclaimer" on the course to the effect that it contradicts Christian beliefs—as she feels it does. She herself is "well-grounded in the Word," she says, and is not afraid that the program could undermine her faith, though she claims it could do so to an unsuspecting Christian who was less well-grounded. Nevertheless, the issue is that in her opinion, the course traffics in spiritual issues that are outside the realm of legitimate job-related training.

"With some people," says Bellman, "you cross the line earlier than with others. And some of these people might seem quite unreasonable from my all have to get along if it means we all

to stay in the dead-end job, does it

every bit as important as what I believe."

The situation doesn't have to involve religious beliefs. It can revolve around any sort of personal values. "In any case where the trainer thinks something is no big deal but somebody else objects," that somebody else has just drawn a legitimate line, he says. At the very least, the matter must be dealt with sensitively. As the trainer, you think it's silly? "Well," says Bellman, "you aren't the one who decides, buddy."

The most celebrated recent case of an organization that wound up in hot water over this whole issue involves Pacific Bell, the San Francisco-based phone company. PacBell's corporate-wide Leadership Development (LED) program—called Krone training or Kroning by some employees, after Charles Krone, the consultant who originally developed the course—resulted in a 1987 investigation by the California Public Utilities Commission and a great deal of embarrassment. The Kroning blowup was routinely reported in conjunction with several cases of religious objections to training programs in other companies in a rash of newspaper and magazine articles about "Guru Mind Control." But, in fact, religion had little or nothing to do with the PacBell flap, according to Keith Porter, who was the company's director of training and human resources at the time.

Porter, now a division manager for construction and engineering with PacBell, says that from the company's point of view, the whole thing started as a fairly straightforward effort to transform its culture. As a formerly regulated monopoly thrust into a competitive environment, PacBell wanted to "minimize bureaucracy, include people in decision making, and get people to produce more in the broadest sense."

Although the Krone program was based in part on the thinking of the late philosopher-mystic Georges Gurdjieff, company officials never saw it as an effort to "focus on employee's attitudes and values directly," Porter says. He admits that many employees would disagree with him about whether, in fact, it did. But he insists that the program "was a long way from sensitivity training."

So why all the fuss? Porter cites problems ranging from confusion about whether participation was voluntary or mandatory to the arcane vocabulary taught in the course—terms like "end-state vision" (goal). The special vocabulary, intended to foster clear, unambiguous communication, instead fostered "in-groups" of people who spoke it and "out-groups" of people who didn't. "'Thinking about thinking' was also a phrase that got us into trouble in conjunction with the vocabulary," he says.

But the major problem—the one that led a group of employees to complain to a newspaper reporter—was that "some people felt they were being forced to fit some mold," Porter says. Ironically, "the intent was to help people bring their individual capabilities to bear effectively on customer issues." But intent is only that. The perception of some employees was that the company was trying to turn them into interchangeable robots.

"We thought we had been listening to employees all along. But once we started listening better [after the flap went public], we heard those complaints," Porter says. Of the gripes the company heard in hundreds of interviews, however, very few had religious overtones, he says. The LED program was finally canceled due to all the negative publicity it attracted, not because PacBell officials were convinced it was a bad idea, he says. Porter says he still thinks it was a worthwhile effort that went wrong for two reasons: The company tried to implement it too fast on too wide a scale, and management failed to listen carefully enough to employees who *weren't* talking about how much they liked the whole thing.

Moral: One way to keep from stepping over the line is to hear the things you don't want to hear.

Pat McLagan says that press accounts of the PacBell case made it sound to her like a classic example of trying to change a culture by instilling non-authoritarian values in an authoritarian way. "Systems theory says that in complex times, diverse systems are 'fitter' than homogeneous ones. The group with the most diverse gene pool is best equipped to survive in a changing environment. So 'robotization' is the last thing an organization should be aiming for."

But an organization with a bureaucratic, authoritarian heritage—a phone company, for instance—will have a tendency to "bring in new tools but stuff them into old bottles," says McLagan. "The company wants its employees to start thinking on their own, reacting imaginatively to different situations. But industrial-age [habits] will lead us to take those values and try to implant them in the same control-oriented way that we used to dictate behaviors."

The employee's predictable reaction? "'You used to tell me how to behave. Now you want to tell me how to think.'"

Tom Peters has a different take on the PacBell blowup. He says he's surprised—and maybe even a little worried—that there haven't been more explosions like it. "We're clearly in the midst of a dramatic change in the economy that demands a dramatic change in the way organizations are required to look and think and smell. In the midst of turmoil, there are going to be some radical answers.... From a non-value-laden viewpoint, it's nice to know that extreme solutions are being tried. The real problem is that big firms aren't trying solutions that are extreme enough."

Where do you draw *your* lines? From a value-laden viewpoint, it's a question worth thinking about. For those who want to venture beyond the bounds of job-specific behavior, there's an old rule of thumb that might come in handy. It is this:

As the "intervention" you're engaged in begins to feel more like therapy—to the trainees, not just to you—you ought to be feeling your way more slowly and self-consciously across your own ethical terrain. What are your qualifications here? Have these people sought you out, or have they been sent by their employer? On what grounds do you assume that their personal attitudes or beliefs are in any way substandard or in need of adjustment?

You're not doing therapy, you're just helping them realize their full potential? Well, it's true that most people feel unfulfilled on some level. It may be true that most people aren't functioning up to their ultimate potential—whatever that phrase might mean—at work or in their personal lives. It's nice of you to want to help. But bear in mind that everybody doesn't feel unfulfilled in the same way. And everybody isn't looking for the same answer.

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